CURTIS'S
BOTANICAL MAGAZINE;

OR

Flower Garden Displayed:

In which the most Ornamental FOREIGN PLANTS cultivated in the Open Ground,
the Green-House, and the Stove, are accurately represented and coloured.

To which are added,

THEIR NAMES, CLASS, ORDER, GENERIC AND SPECIFIC CHARACTERS,
ACCORDING TO THE SYSTEM OF LINNÆUS;

*Their Places of Growth, Times of Flowering, and most approved
Methods of Culture.*

CONDUCTED

By SAMUEL CURTIS, F. L. S.

THE DESCRIPTIONS

By WILLIAM JACKSON HOOKER, L. L. D.

F. R. A. and L. S. and Regius Professor of Botany in the University
of Glasgow.

VOL. VII.

OF THE NEW SERIES;

Or Vol. LX. of the whole Work.

> "Who can paint
> Like Nature? Can Imagination boast
> Amid his gay creation, hues like these,
> And lay them on so delicately fine,
> And lose them in each other?"

LONDON:
Printed by Edward Couchman, 10, Throgmorton Street;
FOR THE PROPRIETOR, SAMUEL CURTIS,
AT THE
BOTANICAL MAGAZINE WAREHOUSE, GLAZENWOOD, NEAR COGGESHALL, ESSEX:
Also by Sherwood, Gilbert, & Piper, 23, Paternoster Row; J. & A. Arch, Cornhill; Treuttel, & Wurtz,
Soho Square; Blackwood, Edinburgh; and in Holland, of Mr. Gt. Eldering, Florist, at Haarlem:
And to be had of all Booksellers in Town and Country.
1833.

SHOUT
SHARE
IT

TO

THE RIGHT HONORABLE

THE COUNTESS OF DALHOUSIE,

OF DALHOUSIE CASTLE, &c. &c.

WHO,

NOTWITHSTANDING

THE VARIED DUTIES OF HER EXALTED STATION, BOTH IN

THE CANADAS AND IN BENGAL,

HAS RENDERED

ESSENTIAL SERVICE TO BOTANY BY HER EXTENSIVE COLLECTIONS,

AND BY THE INTRODUCTION OF MANY INTERESTING SPECIES

TO THE GARDENS OF THIS COUNTRY,

THE PRESENT VOLUME

IS INSCRIBED,

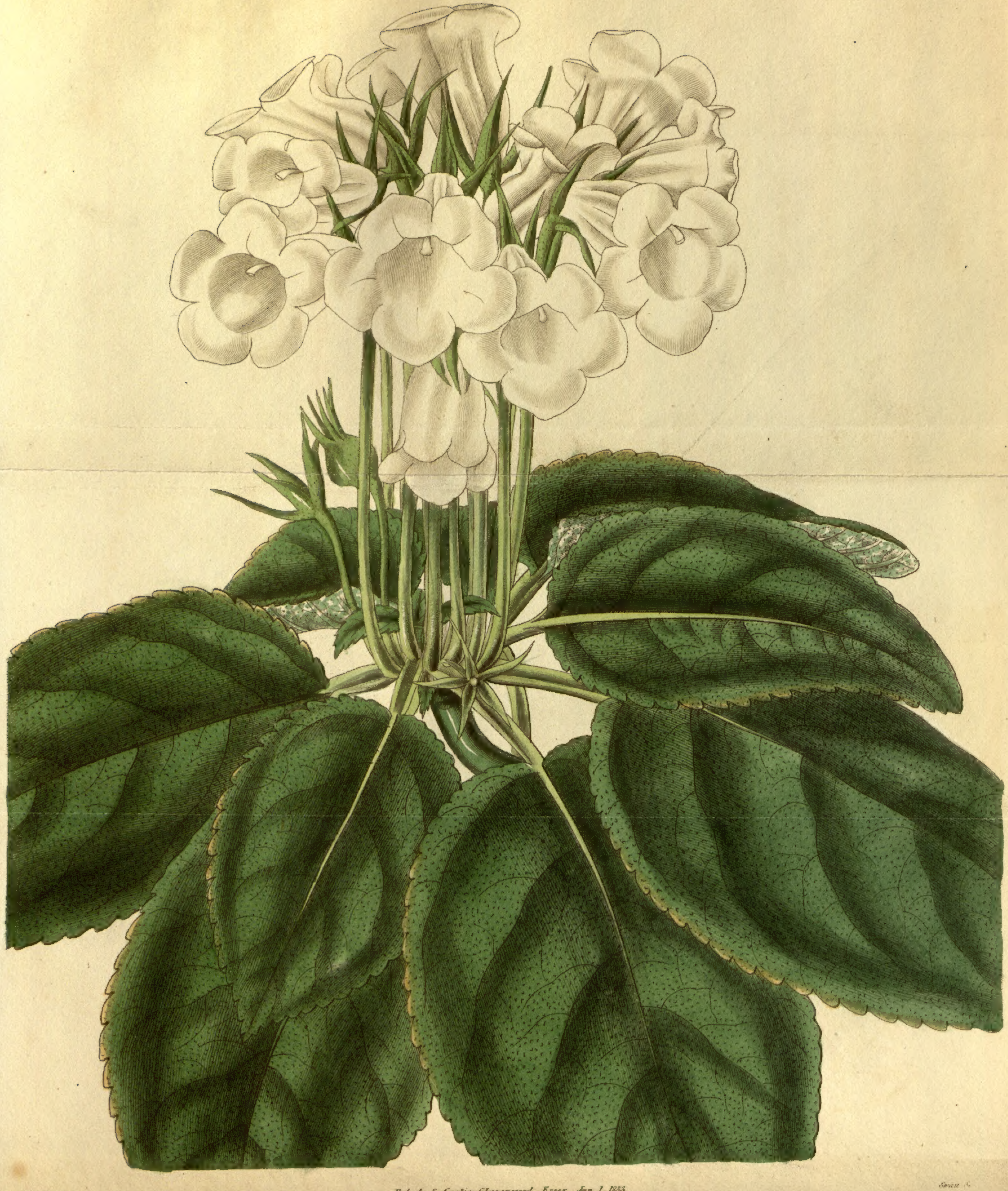
WITH SENTIMENTS OF THE HIGHEST RESPECT,

BY HER FAITHFUL

AND OBEDIENT HUMBLE SERVANT,

W. J. HOOKER.

GLASGOW, Dec. 1, 1833.



W. J. H. delt.

Pub by S. Curtis, Glazenwood Essex. Jan 1. 1833.

Swan Sc.

GLOXINIA SPECIOSA, *var.* albiflora. SHOWY GLOXINIA; White-flowered variety.

****

Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIEÆ.)

Generic Character.

Cal. superus, pentaphyllus. *Cor.* campanulata: limbo obliquo. *Filamenta* cum rudimento quinti imo tubo corollæ inserta. *Caps.* 1-locularis. *Recept.* 2, biloba, lateribus inserta.

Specific Character and Synonyms.

GLOXINIA* *speciosa;* subacaulis, foliis ellipticis crenatis pubescenti-hirsutis, pedunculis erectis flore longioribus, corollæ tubo inflato.

GLOXINIA speciosa. *Loddiges, Bot. Cab. t.* 28. *Bot. Reg. t.* 213. *Bot. Mag. t.* 1937.

(β.) floribus albis.

The usual, or purple-flowered state of this plant has been already figured and described, both in the Botanical Magazine and Register. It remains for us to give a representation of the white-flowered variety of this plant, which we believe is yet uncommon in the stoves of this country, though a pale-purple-blossomed kind is not unfrequent.

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* So named by L'HÉRITIER, in honour of Dr. BENJAMIN PETER GLOXIN of Colmar, who had published on MARTYNIA and some allied Genera.

3207.

W. J. H. del.ᵗ

Pub. by S. Curtis Glazenwood Essex. Jan. 1. 1833.

Swan Sc.

(3207)

LOBELIA MUCRONATA. SHARP-POINTED LOBELIA.

* * *

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—LOBELIACEÆ.)

Generic Character.

Corolla tubo hinc fisso (raro integro); *limbo* 5-partito: *Antheræ* connatæ. *Stigma* bilobum (nunc indivisum). *Capsula* bilocularis (raro 3-locul.), apice supero bivalvi. *Br.*

Specific Character and Synonyms.

LOBELIA *mucronata;* foliis sparsis sessilibus oblongo-lanceolatis serrulatis utrinque pubescentibus mucronatis, racemo brevi subfolioso laxo.

LOBELIA mucronata. *Cav. Ic. v.* 6. *p.* 516. *t.* 516. *Schultes Syst. Veget. v.* 5. *p.* 43. *Spreng. Syst. Veget. v.* 1. *p.* 710.

DESCR. *Root* perennial. *Stem* erect, herbaceous, two and a half to three feet high, simple, slightly downy, purplish-red. *Leaves* numerous, scattered, sessile, by no means amplexicaul, oblong or oblongo-lanceolate, three to four inches long, minutely serrated, tipped with a short point or mucro, downy and very soft to the touch on both sides: *colour* a pale green, tinged with red, especially at the midrib beneath. *Raceme* terminal, short, lax, of twelve or fourteen spreading, large, and richly-coloured *flowers,* subtended at the base by *bracteas* which are, below, large and foliaceous, above smaller, more or less tinged with purple. *Calyx: tube* short, somewhat angled, downy, with five nearly equal acuminated teeth. *Corolla* bright crimson, downy, pale in the bud, slit on the upper side for nearly its whole length, through which the style and column of *stamens* are more or less protruded, *limb* deflexed, five-cleft, and somewhat two-lipped. Combined *filaments*, a cylindrical, slender tube, reddish. *Anthers* lead-coloured.

Seeds of this very beautiful plant were communicated to the Glasgow Botanic Garden from Chili, the native country of the species, by ALEXANDER CRUCKSHANKS, Esq., and blossoms were produced in the greenhouse in August, 1832. Like the LOBELIA *Tupa* it will probably be found to be hardy enough in England to bear the open air, and will then prove a great acquisition. It is, however, a much smaller plant than that, in all its parts, bearing a much shorter and more lax raceme of flowers, but which are equally brilliant in point of colour. It does not appear to be known to any author except CAVANILLES, who has given a very accurate figure of it in the work above quoted.

W.J.H. del.

Pub by S. Curtis Glazenwood Essex Jan 1 1833.

Swan Sc.

CRYPTOPHRAGMIUM VENUSTUM. STATELY CRYPTOPHRAGMIUM.

* * *

Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—ACANTHACEÆ.)

Generic Character.

Cal. 5-partitus æqualis. *Cor.* bilabiata vel ringens, tubo erecto. *Stam.* 2, lateri infero tubi inserta. *Antheræ* bilocellatæ, antice maxime contiguæ rimaque simplici dehiscentes, loculi fundo septo communi bilamellato diviso. *Capsula* tetragona, bilocularis, septo adnato, polysperma, a basi seminifera. *Semina* retinaculis sustensa.—Inflorescentia; racemi *vel* spicæ *secundæ, vel glomerato-subverticillatæ.* Bracteæ *et* bracteolæ *parvæ, subæquales. Nees v. Esenb.*

Specific Character and Synonyms.

CRYPTOPHRAGMIUM* *venustum;* spica terminali composita brachiata, foliis ellipticis in petiolum alate decurrentibus denticulatis scabris, corolla calyce multo longiore. *Nees.*

CRYPTOPHRAGMIUM venustum. *Nees von Esenb. Acanth. Ind. Orient. in Wall. Pl. Asiat. Rar. v.* 3. *p.* 100.

JUSTICIA venusta. *Wall. Pl. Asiat. Rar. v.* 1. *p.* 53. *t.* 66. *Ejusd. Catal. n.* 2470. *a. b.*

DESCR. A *shrub,* according to Dr. WALLICH, attaining a height of four to five feet in its native country, with a

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* From κρυπτος, *concealed,* and φραγμος, a *partition,* from the concealed dissepiment of the anther.

slightly branched, but rather stout *stem,* branches four-sided. *Leaves* opposite and decussate, the full grown ones a span or more in length, ovate, acuminate, obscurely serrated, rounded at the base, and then suddenly attenuated into a broadly-winged and waved *petiole,* scabrous on both sides: the midrib sends off numerous parallel and nearly transverse nerves, and these again lesser ones or veinlets, which anastomose with them. *Panicle* terminal, large: *peduncle* and *pedicels* four-sided, downy. *Flowers* handsome, arranged in distichous, yet subsecund spikes on the ultimate ramuli. *Calyx* small, ovate, five-partite, the segments nearly equal, narrow-lanceolate, straight or slightly incurved. *Corolla* an inch and a half long: the *tube* straight, pale purple, the *limb* deep-purple, white in the centre, cut into two patent lips; upper lip in two, lower in three, linear-oblong segments. *Anthers* white, prominent. *Style* white, a little longer than the stamens, slightly thickened upwards: *stigma* small, two-lobed.

A folio plate were scarcely sufficient to do justice to the large panicle of this beautiful plant, which Dr. WALLICH declares to be the loveliest of its tribe with which he is acquainted. The colour of the limb of the flowers is a peculiarly rich purple, but they are too much scattered on a single branch of the panicle to give the effect produced by the entire panicle. It was discovered in the mountains of Pandua on the eastern boundary of India, and cultivated in the Calcutta Botanic Garden in 1825, whence Dr. WALLICH introduced it to the English Gardens, through that of the Horticultural Society of London in 1828. Its flowering season in the stove of the Glasgow Botanic Garden is October.

Fig. 1. Flower. 2. Stamens and portion of the Style: *magnified.*

3209.

W J H del.

Pub. by S. Curtis, Glazenwood Essex. Jan 1 1833.

Swan Sc

EPIDENDRUM HARRISONIÆ. MRS. HARRISON'S EPIDENDRUM.

****

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Columna cum ungue labelli longitudinaliter connata in tubum (quandoque decurrentem ovarium). *Massæ pollinis* 4, parallelæ, septis completis persistentibus distinctæ, basi filo granulato elastico auctæ. *Br.*

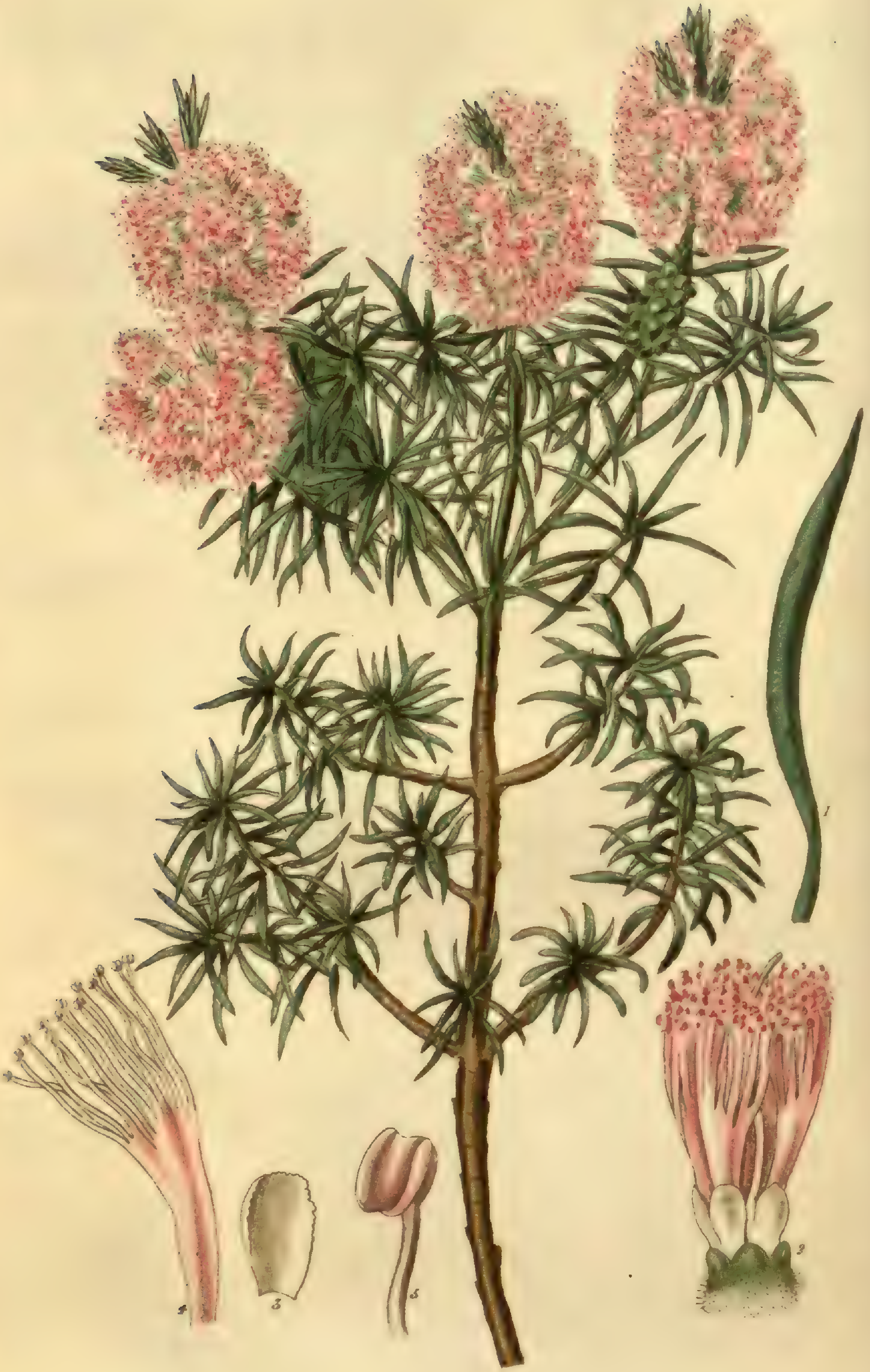
Specific Name and Character.

EPIDENDRUM *Harrisoniæ;* caule folioso, foliis distichis lineari-oblongis undulatis obtusis, pedunculo elongato bracteato terminali, racemo subumbellato, petalis tribus exterioribus ellipticis, 2 interioribus lineari-oblongis, labello profunde trifido, segmentis cuneato-oblongis obtusis, intermedio lacinula reflexa bilobo.

DESCR. *Parasitic. Stem* elongated, bearing many distichous, coriaceous, linear-oblong, somewhat waved *leaves,* sheathing at the base, blunt at the extremity. Beyond the leaves, the main-stem is elongated and incurved, and forms a terminal *peduncle,* somewhat compressed, and clothed with many sheathing, acuminated, membranaceous, compressed *bracteas. Flowers* large, of a pale, delicate green, whitish in the centre, arranged in a corymb-like *raceme. Petals* patent; the three outer ones the largest, elliptical, obtuse, the two inner ones linear-oblong. *Labellum* patenti-reflexed, the lower part combined with the semicylindrical *column;* thence suddenly dilated and deeply three-cleft, the segments oblongo-cuneate, the middle one the broadest, and having a small point suddenly reflexed, which makes the middle segment appear two-lobed. At the base of the lip are two small tubercles. *Anther* small, half-immersed. *Pollen-masses*, as in all the Genus, yellow.

This is a fine and very distinct species of EPIDENDRUM, allied in size and general mode of growth to E. *nutans*, but very different in the form of the labellum. It was communicated from the stove of Mrs. ARNOLD HARRISON, of Aigburgh, having been detected in Brazil by her brother, Mr. WILLIAM HARRISON.

Fig. 1. Under side of the Lip. 2. Pollen-masses : *magnified.*



W. J. H. delᵗ

Pub by S. Curtis Glazenwood Essex Jan. 1. 1860

Swan Sc.

(3210)

MELALEUCA FRASERI. MR. FRASER'S MELALEUCA.

Class and Order.

POLYADELPHIA POLYANDRIA.

(Nat. Ord.—MYRTACEÆ.)

Generic Character.

Calycis tubus subhemisphæricus, *limbus* 5-partitus. *Petala* 5. *Staminum phalanges* totidem elongatæ, petalis oppositæ. *Stylus* filiformis. *Stigma* obtusam. *Antheræ* incumbentes. *Capsula* calycis tubo incrassato et ramo basi adnato connata et inclusa, 3-locul., polysperma. *Semina* angulata.—Arbores *aut* Frutices, *plurimæ ex* Nova Hollandia, *paucæ ex* India Orient. Folia *alterna aut opposita, basi æqualia.* Flores *omnino sessiles aut subadnati, spicati aut capitati, albi, flavidi aut purpurascentes. D C.*

Specific Name and Character.

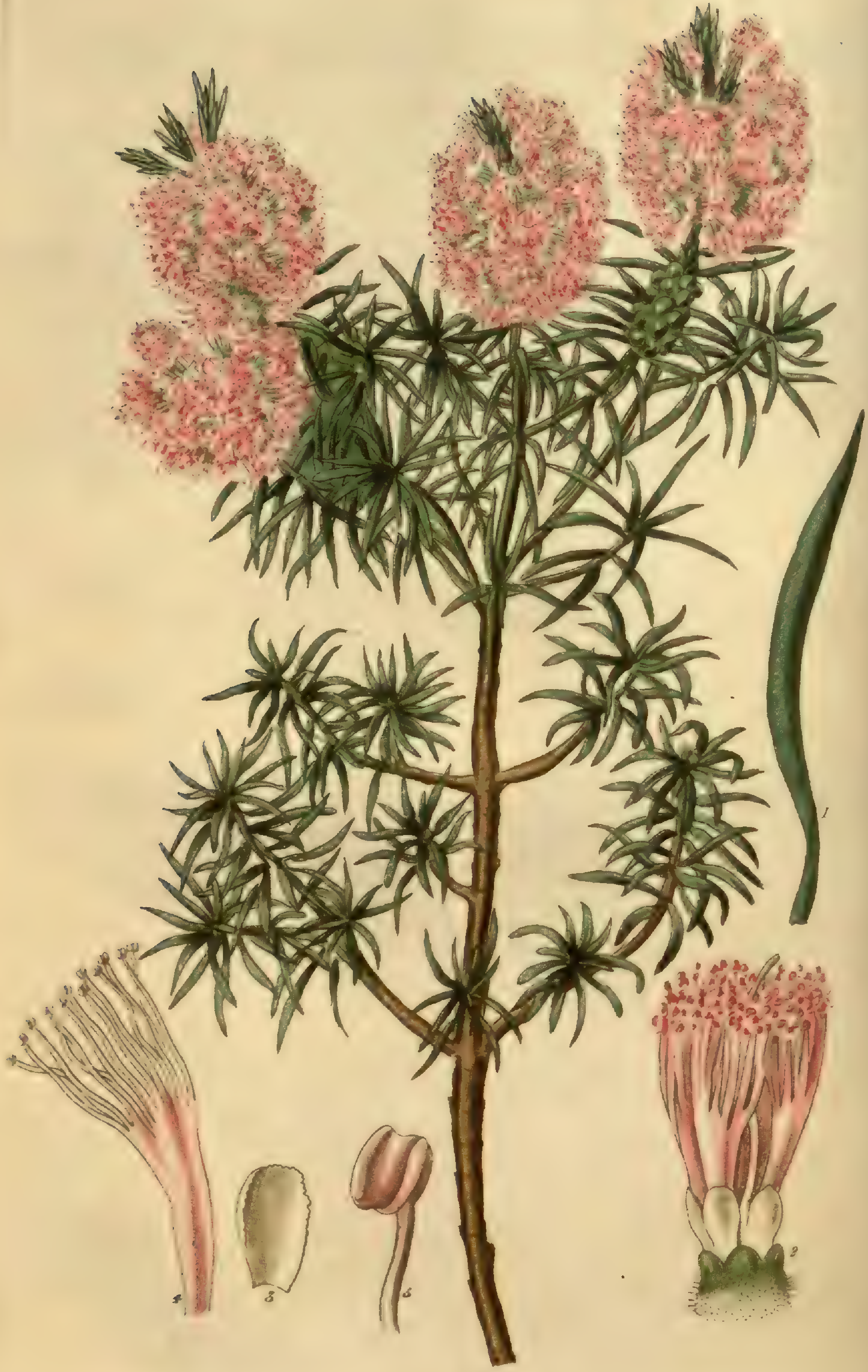
MELALEUCA *Fraseri;* foliis alternis lineari-subulatis compressis enerviis patenti-recurvis mucrone acuminatis basi attenuatis, spicis ovali-globosis terminalibus, phalangibus 12—14-andris, unguibus corolla longioribus.

DESCR. A lowly, much branched *shrub,* with many short, opposite, or subverticillate *branches,* bearing, generally, towards their extremities, rather crowded, alternate, quite glabrous, linear-subulate, compressed, reflexo-patent *leaves,* slightly attenuate at the base, acuminate with a mucro at the

---

* μελας, *black,* and λευκος, *white;* the same as *Caja-puti,* or white tree, the name of the original species in the Malay language, and thence also called LEUCADENDRON and *Arbor alba.*

3210.



W. J. H. del.

Pub by S. Curtis Glazenwood Essex. Jan 1. 1833

Swan Sc.

(3210)

MELALEUCA FRASERI. MR. FRASER'S MELALEUCA.

* * *

Class and Order.

POLYADELPHIA POLYANDRIA.

(Nat. Ord.—MYRTACEÆ.)

Generic Character.

Calycis tubus subhemisphæricus, *limbus* 5-partitus. *Petala* 5. *Staminum phalanges* totidem elongatæ, petalis oppositæ. *Stylus* filiformis. *Stigma* obtusam. *Antheræ* incumbentes. *Capsula* calycis tubo incrassato et ramo basi adnato connata et inclusa, 3-locul., polysperma. *Semina* angulata.—Arbores *aut* Frutices, *plurimæ ex* Nova Hollandia, *paucæ ex* India Orient. Folia *alterna aut opposita, basi æqualia.* Flores *omnino sessiles aut subadnati, spicati aut capitati, albi, flavidi aut purpurascentes. D C.*

Specific Name and Character.

MELALEUCA *Fraseri;* foliis alternis lineari-subulatis compressis enerviis patenti-recurvis mucrone acuminatis basi attenuatis, spicis ovali-globosis terminalibus, phalangibus 12—14-andris, unguibus corolla longioribus.

DESCR. A lowly, much branched *shrub,* with many short, opposite, or subverticillate *branches,* bearing, generally, towards their extremities, rather crowded, alternate, quite glabrous, linear-subulate, compressed, reflexo-patent *leaves,* slightly attenuate at the base, acuminate with a mucro at the point: the surface under a microscope is minutely dotted, and there are besides several (comparatively) large and oblong, pellucid dots, when dry striated :—not unfrequently, by a twist at the base of the leaves, they become vertical. *Flowers* collected into a spike, of a broadly oval, or subglobose outline, at the extremity of the branches, only terminated by two or three annotinous shoots. Base of the calyx where it is accrete with the *germen* and stem, very downy : *limb* of five broadly-ovate, rather small, erect, green teeth. *Petals* five, obovate, concave, erect, white. *Stamens* all nearly equal in height, combined into five phalanges, each of about thirteen *filaments,* whose combined portions or claws are much longer than the corolla, and occupying about half the length of the filaments themselves: all of a delicate rose colour. *Style* about as long as the stamens.

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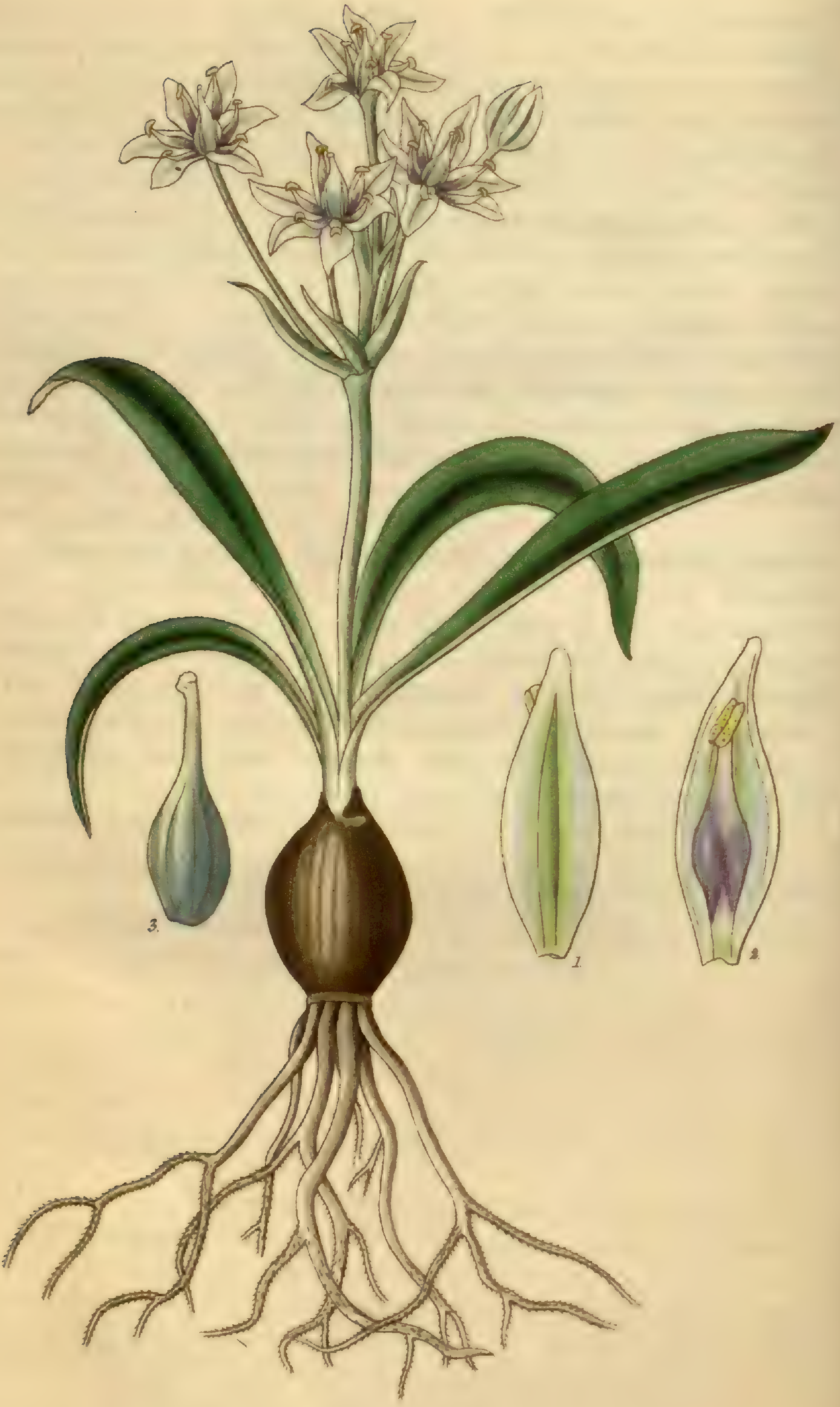
* μελας, *black,* and λευκος, *white;* the same as *Caja-puti,* or white tree, the name of the original species in the Malay language, and thence also called LEUCADENDRON and *Arbor alba.*

From the greenhouse of the Glasgow Botanic Garden, where it was received from the late Mr. FRASER, Colonial Botanist at Sidney, New South Wales, under the name of MELALEUCA *genistifolia* : but the plant so called by SMITH (Ex. Fl. t. 55,) is very different, having much broader leaves, and the stamens of a totally different character; nor does our plant accord with any described species, whence I have been led to name it in compliment to the person to whom we are indebted for its possession.

Fig. 1. Leaf. 2. Flower. 3. Petal. 4. One of the five bundles of Stamens. 5. Anther and summit of a Filament: *magnified*



James McNab del. Pub by S. Curtis Glazenwood Essex Jan. 1 1833. Swan sc.

SCILLA VILLOSA. HAIRY-LEAVED SQUILL.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—ASPHODELEÆ.)

Generic Character.

Corolla subrotata. *Stamina* æqualia, basi petalis adnata. *Capsula* supera, trilocularis. *Semina* globosa. *Spreng.*

Specific Character and Synonyms.

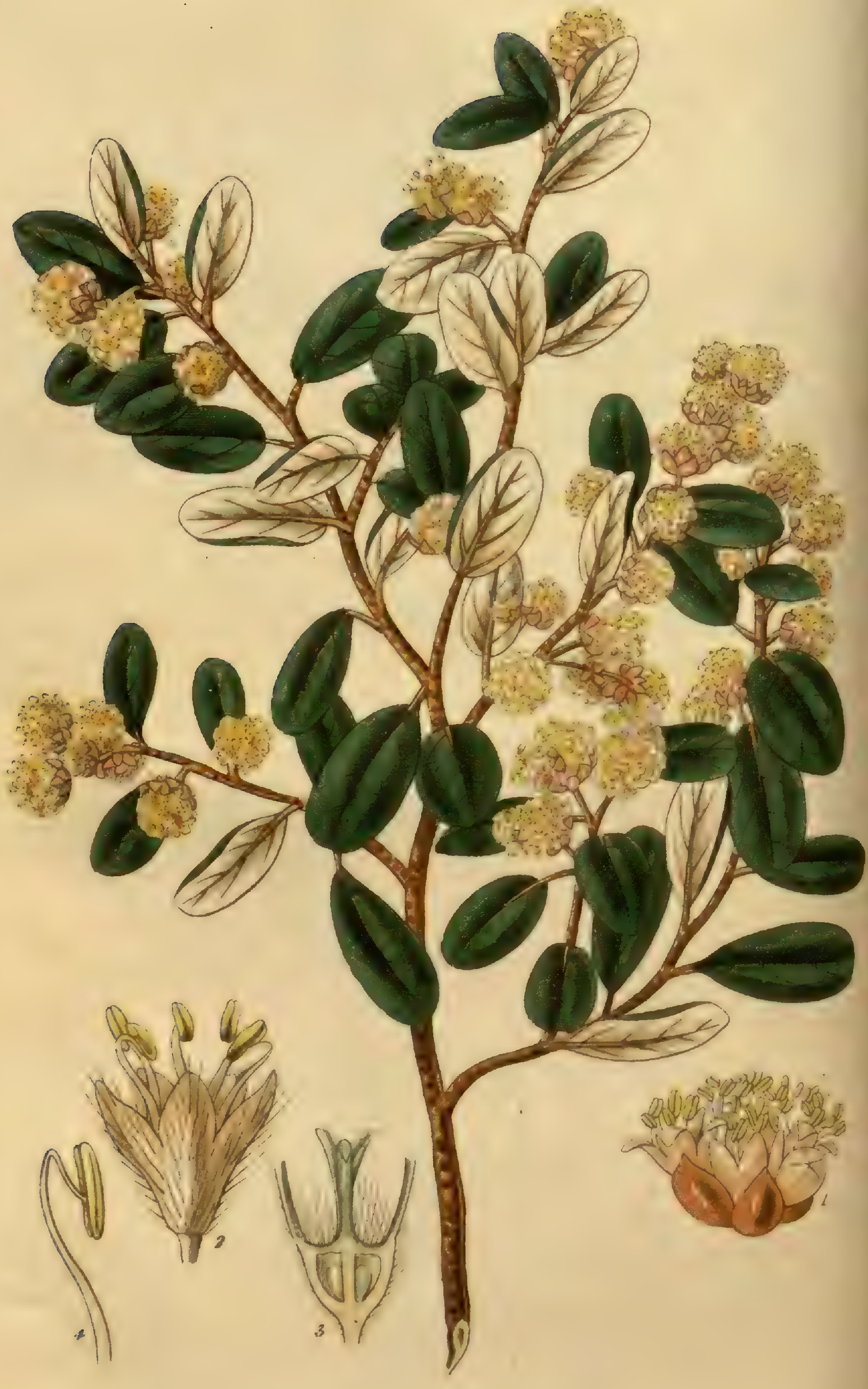
SCILLA *villosa;* foliis lanceolatis laxis villosis, racemis corymbosis, bracteis lanceolatis pedunculis æquantibus. *Sprengel.*

SCILLA villosa. *Desf. Fl. Atl. v.* 1. *p.* 299. *t.* 85. *f.* 2. *Sprengel, Syst. Veget. v.* 2. *p.* 67. *Schultes, Syst. Veget. v.* 7. *p.* 566.

DESCR. *Bulb* ovate, coated, about the size of a small onion, truncated below with a prominent, sharp border, from within which, many strong, wrinkled, nearly straight *roots* descend, their subdivisions spreading and villous. *Leaves* (three inches long, half an inch broad) about four, all radical, spathulato-lanceolate, attenuated at the base, and there concave in front, nearly flat above, spreading, more or less ciliated, with rather long, but unequal spreading hairs, and more sparingly villous on the upper surface, glabrous below, and purple in the lower half; involute at the apex, giving the appearance of a mucro. *Scape* (an inch and a half long below the first pedicel) erect, shorter than the leaves, nearly round, glabrous, pale green. *Bracteæ* (seven lines long) single, lanceolate, attenuated at the apex, persisting. *Racemes* corymbose, few- (five to seven-) flowered; *pedicels* erect, stout, resembling the scape, each springing from the axil of a bractea, embraced by it at the base, and equal to it in length in the native specimens, in the cultivated plant, twice as long as it. *Corolla* (nine lines across,) of six petals, spreading; *petals* ovate, attenuated at the base, each with a small tuft of crystalline tomentum at the apex, pale lilac, with a broad, deep green stripe in the centre below. *Stamens* shorter than the petals, rising from the leaves of these, and adhering to them by their backs for a little way; *filaments* lilac, tumid in the middle, slightly concave in front and nectariferous; *anthers* versatile, *pollen* yellow. *Pistil* equal in length to the stamens, of a dull purplish-green; *stigma* small, terminal, villous; *Style* short, conical, six-furrowed; *Germen* ovate, six-furrowed, the alternate furrows hairy, trilocular, the dissepiments double, being formed by a duplicature of the inner membrane, opposite to the hairy lines on the germen, and alternate with the sutures; *ovules* globular, several in each loculament; *receptacle* central.

Specimens of this pretty little plant, which no doubt will bear cultivation in a warm border in the open air, I received from my friend Dr. Dickson in 1831, having been gathered by him in the neighbourhood of Tripoli. Among the specimens, some of the bulbs yet retained life: these were planted in the stove, at the Botanic Garden, Edinburgh, and flowered there in November, 1832. *Graham.*

Fig. 1. Back view of a Petal. 2. Front view of ditto, with a Stamen. 3. Capsule: *magnified.*



W. J. H. del.ᵗ

Pub: by S. Curtis, Glazenwood Essex Jan 1 1833.

Swa

(3212)

POMADERRIS BETULINA. BIRCH-LEAVED POMADERRIS.

* * *

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—RHAMNEÆ.)

Generic Character.

Cal. semi-adherens, 5-fidus. *Pet.* 5 squamiformia, concava, rarius nulla. *Stamina* lobis cal. alterna iisque breviora, in petalorum cavitate juniora abscondita. *Discus* nullus. *Stylus* brevissimus, triqueter. *Stigmata* 3. *Capsula* 3-cocca, 3-sperma, cocculis interne planiusculis foramine maximo per membranam tenuem tardius solutam clauso instructis. *Semina* erecta—Arbusculæ *aut* Frutices e Nova Hollandia *orti, foliis alternis subtus incanis, habitus* Ceanothi *ad quoad Genus valde accedit. D C.*

Specific Character and Synonym.

POMADERRIS[*] *betulina;* florum capitulis subpaniculatis, foliis ovalibus obtusis superne glabriusculis penninerviis subtus ferrugineo-lanatis, floribus apetalis. *Cunningh.*

POMADERRIS betulina. *Cunningh. MSS.*

DESCR. A slender, much branching *shrub,* the old *branches* dark-gray and glabrous, the younger ones clothed with rusty down. *Leaves* numerous, shortly petiolate, oval or elliptical, scarcely an inch long, obtuse, slightly attenuated at the base, coriaceous, the margins slightly revolute, darkgreen and nearly glabrous above, with impressed, pennated

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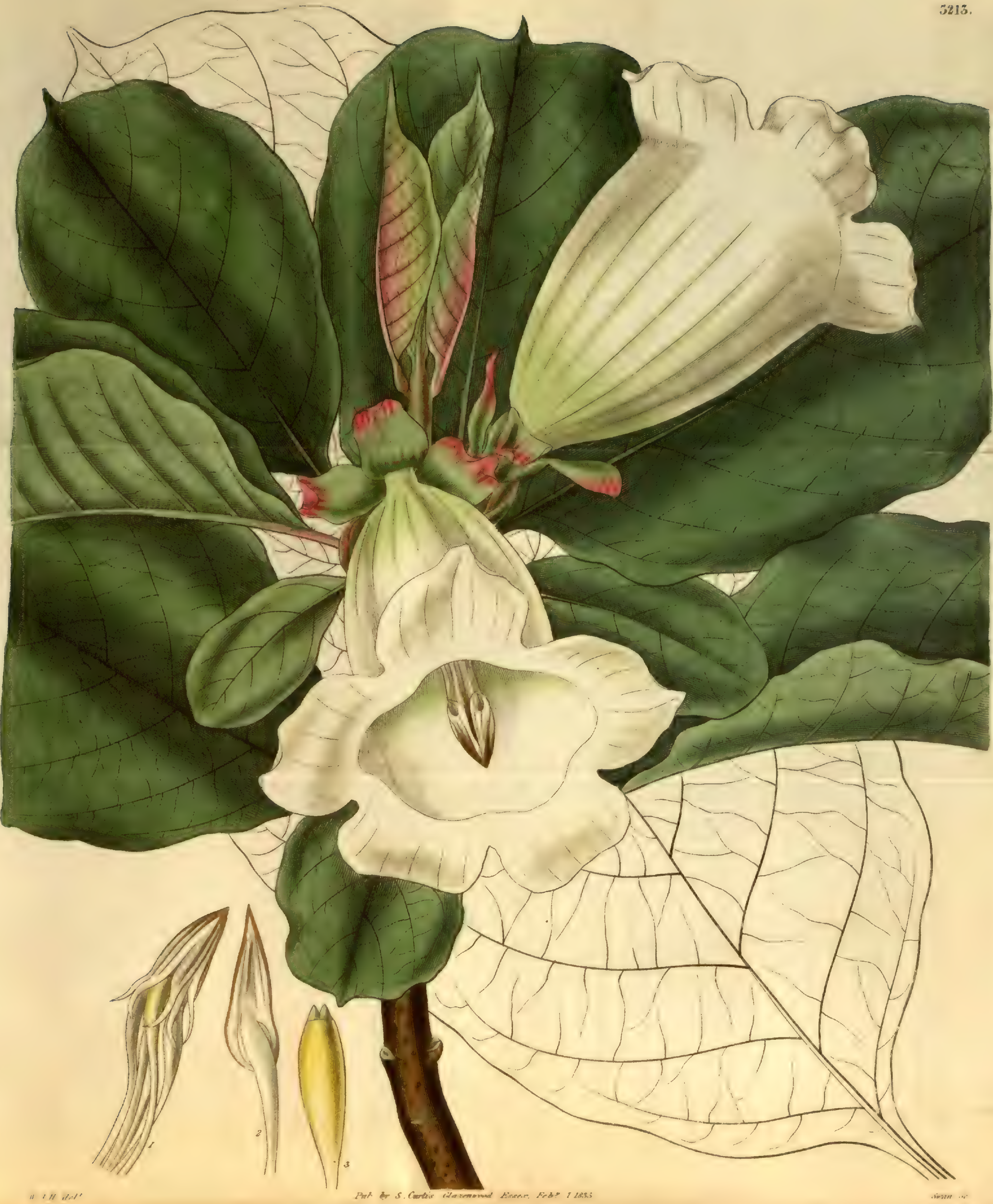
[*] Πωμα, a *covering,* and δερρις, a *skin,* on account of the peculiar membranous covering to the capsule.

nerves, beneath clothed with a dense, rusty down, deeper on the prominent nerves and midrib. *Flowers* small, collected into dense, bracteated glomeruli or capitula, which are sometimes on short, solitary, peduncles from the axils of the leaves, or they form a sort of panicle at the extremities of the numerous branches. *Bracteæ* membranaceous, ovate, concave, ferruginous, slightly downy, shorter than the scarcely pedicellated flowers, subinvolucrate. *Calyx* subcampanulate, pale yellowish-white, densely hairy, the lower part of the tube adherent with the germen, the *limb* five-cleft, *segments* ovate, acute, erecto-patent, hairy at the base within. *Petals* none. *Stamens* alternate with the segments of the calyx, and longer than they. *Filaments* erect, remarkably inflexed at the extremity. *Anthers* versatile, oblong, yellow, two-celled. *Style* short: *Stigma* three-cleft, the segments linear.

This new species of Pomaderris was discovered by Allan Cunningham, Esq. in a ravine at the base of the "Pine Hills," near Bathurst, New South Wales, in October, 1822; and by the same Naturalist, in 1823, was introduced to the Royal Gardens at Kew, whence flowering specimens were obligingly communicated by W. T. Aiton, Esq. in April, 1832. It requires the same treatment as the New Holland plants in general, a soil with a considerable admixture of peat, and such protection from the frost in the winter as is afforded by a common greenhouse, or conservatory.

Fig. 1. Capitulum of Flowers. 2. Single Flower. 3. Section of the lower part of the Calyx and Germen. 4. Stamen :—all more or less *magnified.*



W F H del^t

Pub by S. Curtis Glazenwood Essex. Feb^y 1 1835

Swan sc

BEAUMONTIA GRANDIFLORA. LARGE-FLOWERED BEAUMONTIA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—APOCYNEÆ.)

Generic Character.

Cal. pentaphyllus, foliaceus, coloratus. *Cor.* campanulata, *tubo* brevi *fauceque* esquamatis, laciniis subæquilateris. *Stamina* filiformia laxa, antheris subexsertis, sagittatis, medio stigmati adhærentibus, lobis posticis polline vacuis. *Ovarium* biloculare, suffultum *annulo hypogyno,* quinquelobo. *Stigma* oblongum, apicula bifida. *Folliculi* 2 maximi, cohærentes. *Semina* ad umbilicum sericeo-comosa. *Wall.*

Specific Name and Synonyms.

BEAUMONTIA * grandiflora. *Wall. Tent. Fl. Nep. Ill. p.* 15. *t.* 7. *Lindl. in Bot. Reg. t.* 901.
ECHITES grandiflora. *Roxb. Hort. Beng. p.* 20. *Spreng. Syst. Veget. v.* 1. *p.* 634.

DESCR. A climbing *shrub,* in its native country, of vast extent; its long *stems* and numerous *branches* sometimes reaching over trees, at other times straggling near the ground. *Branches* rounded, smooth. *Leaves* numerous, especially towards the extremities of the branches, large, broadly oblong, sometimes approaching to obovate, entire, glabrous, acuminulate, much nerved, on short *petioles;* the young ones and extremities of the young branches often

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* Named in honour of the late Mrs. BEAUMONT of Bretton Hall, an ardent lover and a munificent patroness of Horticulture.

tinged with red. *Flowers* very fragrant, large, white, terminal, few upon each branch in our plant, but forming a corymb in native specimens. *Peduncles* very short, with large *bracteæ* or small floral leaves at the base, reddish. *Calyx* large, foliaceous, of five, broad, ovate, waved, patent, obtuse, coloured pieces. *Corolla* very large, cream-coloured, bell-shaped, of a somewhat leathery texture, the tube faintly striated, the *limb* five-cleft, the segments rounded, acuminulate, spreading, somewhat oblique. *Stamens* about as long as the tube. *Filaments* thickened upwards, pale green. *Anthers* sagittate, white with a brown margin, combined over the stigma. *Style* remarkably thickened, yellow and club-shaped at the extremity, and tipped with two points, the bifid, dark green *stigma*.

Mr. MARNOCK was so obliging as to send the accompanying specimen from the great stove or dome conservatory of the noble gardens at Bretton Hall, in May, 1832, and under the name of BEAUMONTIA *longifolia*. But on comparing it with the original B. *grandiflora*, cultivated in the same stove, Mr. MARNOCK could discover no other difference than the larger size of the leaves of the plant, and its readily flowering, while the other never could be made to blossom. I have, too, the authority of Dr. WALLICH for saying that this is the B. *grandiflora*, and that no other species is known to exist.

This truly superb plant, in its flowers and foliage not inaptly resembling DATURA *arborea*, and equally fragrant, was introduced by Dr. WALLICH in 1818, from mountain-woods in Eastern Bengal, where it grows at Chittagong and Sylhet: as it does, also, at Noakote in Nepaul.

Fig. 1. Stamens. 2. Anther. 3. Summit of the Style and Stigmas: *magnified.*

W. J. H. del.

Pub by S. Curtis Glazenwood Essex Feb. 1 1833.

Swan Sc.

CALCEOLARIA INTEGRIFOLIA, *var.* γ, viscosissima. ENTIRE-LEAVED CALCEOLARIA ; very viscid *var.*

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—SCROPHULARINÆ.)

Generic Character.

Cal. 4-partitus. *Cor.* bilabiata: *labium* inferius calceiforme. *Capsula* semibivalvis, valulis bifidis.

Specific Character and Synonyms.

CALCEOLARIA *integrifolia;* pubescens, erecta, foliosa, foliis ovato-lanceolatis sessilibus connatis argute dentatis reticulatim rugosis, paniculis terminalibus corymboso-paniculatis.

CALCEOLARIA integrifolia. *Linn. Suppl. p.* 86. *? Willd. Sp. Pl. v.* 1. *p.* 107. *? Lindl. in Bot. Reg. f.* 744. *(α)*—excluding the reference to *Sm. Ic. ined.* which is C. *ovata* and a very different species—*et t.* 1083. *(β.)*

CALCEOLARIA salviæ folio. *Feuill. Per. v.* 3. *p.* 13. *t.* 7.

(γ.) tota pubescenti-viscidissima, foliis multo majoribus latioribusque. *(Tab. nostr.* 30, *var.* γ.*)*

DESCR. *Stem* two to three feet high, rounded, proliferous, as it were, with opposite *branches,* clothed with exceedingly viscid hairs, as is the whole plant. *Leaves* opposite, more or less connate, ovato-lanceolate, much spreading, irregularly and sharply toothed at the margin, rough with reticulated veins, below paler and more downy: the lower ones are tapering at the base, but none upon a decided petiole. The *main-stem* and *branches* bear at their extremity, a rather dense, and usually corymbose bi- trichotomously divided *panicle.* *Peduncles* pubescenti-glandular, slender. *Calyx* of four deep, ovate segments. *Corolla* bright, but not deep, yellow, changing, however, in drying to a full and reddish-orange, subglobose, inflated, upper *lip* not much more than half the size of the lower, closed upon it, both compressed.

It would be a difficult and a hopeless task to endeavour to determine a large proportion of the CALCEOLARIAS, which are now cultivated in our gardens; so much have their characters been destroyed by the mixing of the species. Even in the native state, from the numerous wild species that are now in my Herbarium, it is easy to see that they are liable to much variation: and none, perhaps, so much so as that to which I am led to refer the present individual, which is known in our gardens as C. *integrifolia,* but whether of LINN. Suppl. and WILLD. I cannot say; the C. *salviæ folio* of FEUILLÉE. Two remarkable *varieties* are figured by Mr. LINDLEY in the Botanical Register: our's is a still more singular state, distinguished by the great size of the leaves and the viscid nature of the whole plant:—so viscid, indeed, that it is difficult to separate it from the paper in which the specimens are dried.

It was raised from seeds by Mr. CAMERON, at the Birmingham Botanic Garden, where it flowered in great beauty and perfection in November, 1832.

Fig. 1. Flower: *magnified.*

[illegible] del. Pub. by S. Curtis Glazenwood Essex Feb.y 1.1833. Swan sc.

CINERARIA TUSSILAGINIS. COLT'S-FOOT CINERARIA.

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Class and Order.

SYNGENESIA SUPERFLUA.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Receptaculum nudum. *Pappus* simplex. *Involucrum* polyphyllum, æquale.

Specific Character and Synonyms.

CINERARIA * *Tussilaginis;* floribus laxe paniculatis, foliis reniformi-cordatis multangulis subtus albido-tomentosis, petiolis basi auritis.

CINERARIA Tussilaginis. *L' Hérit. Sert. Angl. n.* 26. *Willd. Sp. Pl. v.* 3. *p.* 2078. *Spreng. Syst. Veget. v.* 3. *p.* 548.

DESCR. Our specimen of this plant is little more than a foot high, rising from a densely fibrous, apparently annual *root.* *Stem* erect, almost entirely glabrous, rounded, branched almost from the base. *Leaves* few and mostly radical, between cordate and reniform, membranaceous, angled and toothed, green above, white and very tomentose beneath, where it is likewise marked with conspicuous and rather prominent veins; *petiole* slightly downy, distinctly auricled at the base. The *stem-leaves* are sessile, so that the auricles and leaf combine, and they become more ovate upwards, gradually passing into rather large, on both sides glabrous, *bracteæ* at the forking of the panicle. *Flowers* large, handsome, disposed in a lax, somewhat

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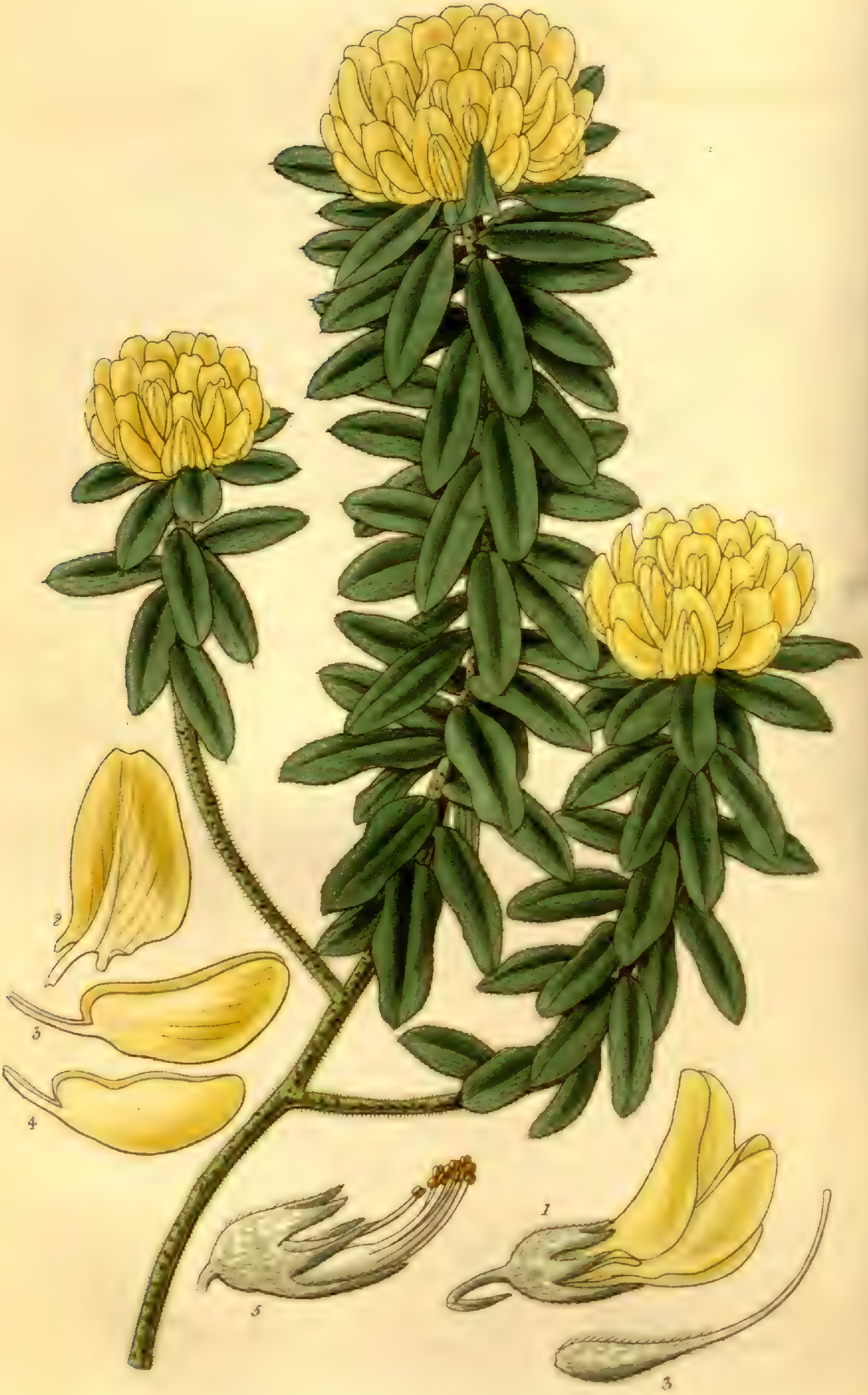
* From *Cineres*, ashes, from the pale ashen hue of the underside of the leaves of many species.

corymbose *panicle*. *Calyx* purplish-green, of several erect, equal, linear segments. *Disk* yellow. *Corollas* of the *ray* about twelve or thirteen, lilac-purple, spreading, obscurely three-toothed at the extremity.

The Birmingham Botanic Garden, so recently formed by the liberality of the inhabitants of that neighbourhood, has already, under the judicious management of Mr. CAMERON, brought many rare plants to perfection : as is amply testified by a box of rare flowering specimens which I have received during the month of November, the most unpropitious season, perhaps of the whole year. Among them is the present very beautiful species of CINERARIA, raised from seeds sent from the island of Teneriffe, where alone it appears to be a native. The contrast of the dark green of the upper, and the white, downy hue of the under side of the leaves, renders it a very desirable inmate of the greenhouse, or perhaps during the summer it may be found to blossom in the open air.

It was described by L'HÉRITIER in his " Sertum Anglicum ;" but does not appear to have been known to other authors, and it is now for the first time cultivated in our gardens.

LESSING has united the two Genera CINERARIA and SENERIO, there being no distinguishing character between them.



W J H del.

Pub. by S. Curtis, Glazenwood Essex Feb.y 1.1833.

Swan Sc.

PRIESTLEYA VILLOSA. VILLOUS PRIESTLEYA.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Cal. subæqualiter 5-lobus, subbilabiatus. *Cor.* glabra, vexillo subrotundo, breviter stipitata, alis obtusis subfalcatis, carina bicipite dorso curvo convexa. *Stam.* diadelpha (9 et 1). *Stylus* filiformis. *Stigma* capitatum interdum dente acuto postice auctum. *Legumen* sessile plano-compressum ovali-oblongum stylo apiculatum 4—6-spermum. —Frutices *Capenses.* Folia *simplicia integerrima exstipulata.* Flores *flavi in capitula subumbellata aut subspicata dispositi. Differt. a* Borbonia *et* Aspalatho *staminibus diadelphis, a* Liparia *calycinis lobis æqualibus, forma et æstivatione petalorum. D C.*

Specific Character and Synonyms.

PRIESTLEYA* *villosa;* foliis ovato-ellipticis acutis uninerviis planis utrinque ramis calycibus leguminibusque hirsutis. *De Cand. Prodr. v.* 2. *p.* 122.

LIPARIA villosa. *Linn. Mant. p.* 438. *Spreng. Syst. Veget. v.* 3. *p.* 271.

BORBONIA villosa. *Linn. Sp. Pl. p.* 994. *Seba, Thes. v.* 1. *t.* 24. *f.* 2.

DESCR. A small *shrub,* with rather stout, very soft and villous, alternate *branches,* naked below, and marked with the scars of the fallen foliage. *Leaves* mostly crowded towards

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* Name given in compliment to Dr. JOSEPH PRIESTLEY, an eminent English philosopher.

the extremity of the stems, about an inch long, scattered, sessile, elliptical, acute, villous on both sides, and at the margin, single-nerved, acute, quite entire, the margin often reflexed. *Stipules* none. *Flowers* collected into a compact *head* at the extremity of the branches, each upon a very short *pedicel*, with a minute *bractea* at the base. *Calyx* somewhat ovate, scarcely two-lipped, villous, pale green, five-toothed, teeth subulate, the two upper ones the shortest, the lower one the longest. *Corolla* of a clear and rather bright yellow. *Vexillum* roundish, with a rather short *claw*. *Alæ* oblong, somewhat falcate, *carina* subcymbiform. *Stamens* ten, *filaments* diadelphous, nine united and one free, white. *Anthers* subglobose, yellow. *Pistil* about equal in length with the stamens. *Germen* ovate, clothed with long, silky hairs, and tapering gradually into the filiform, white *style*; *stigma* obtuse.

A native of the Cape of Good Hope, requiring the usual treatment of the plants of that kind, and the protection of a greenhouse, where it bears at the extremity of its branches, in the month of November, its heads of bright yellow blossoms. Although introduced in 1774, by Mr. Francis Masson, it has not hitherto found a place in any of our illustrated Botanical works.

We are indebted for the specimens here given to the Messrs. Shepherds, who raised it from Cape seed in 1829.

Fig. 1. Flower. 2. Vexillum. 3. Alæ. 4. Carina. 5. Calyx and Stamens. 6. Pistil: *magnified.*

3217.

Fitch del!

Pub by S. Curtis Glazenwood Essex. Feby 1. 1833.

BLETIA ACUTIPETALA. SHARP-PETALED BLETIA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ. DIV. EPIDENDREÆ. *Lindl.*)

Generic Character.

Sepala patentia æqualia. *Petala* nunc patentia, nunc conniventia, sepalis æqualia. *Labellum* cucullatum, cum columna articulatum, nunc basi saccatum, trilobum, disco sæpius lamellato v. tuberculato. *Columna* elongata, semiteres. *Anthera* carnosa, 8-locularis. *Pollinia* 8 æqualia, caudiculis 4 pulvereis cohærentia.—Herbæ *subterrestres, foliis ensiformibus plicatis, scapis racemosis multifloris, floribus sæpius speciosis. Lindl.*

Specific Character and Synonym.

BLETIA* *acutipetala ;* sepalis quorum duobus medio lamellatis petalisque conniventibus ovatis valde acutis æqualibus, labelli disco lamellis 5 rectis subundulatis, lobis lateralibus ovatis, intermedio apice dilato crispato, scapo radicali alato ramoso, foliis ensiformibus plicatis.

LIMODORUM altum. *Jacq. Ic. Rar. v. 3. t.* 602. (vix *Linn.*)

DESCR. *Bulb* roundish, depressed, half buried in the earth, and marked with circular lines or rings, the scars of former years' leaves. *Leaves* few, ensiform, much acuminated, two to three feet long, arising from the top of the bulb. *Scape* arising from the base of the bulb, four to five

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* In honour of LOUIS BLET, a Spanish apothecary.

feet or more high, and thicker than a swan's quill, terete, purplish below, green above, where it throws out three to four long and more or less patent *branches*, which bear numerous flowers subtended by rather large, linear-subulate *bracteæ*. *Sepals* or three outer segments of the perianth, ovate, acute, the two lower ones bearing in the inside a central, pale lamella for nearly its whole length ; *petals*, or two inner segments of the perianth of the same size and shape with the rest, all connivent and of an uniform pale rose colour, both within and without. *Labellum* standing forward within the petals, and rather longer than they, three-lobed, the *disk* with five yellow, parallel, somewhat wavy laminæ, the two lateral lobes curved upwards, large, purplish rose-coloured, yellow at the base, streaked with purple lines, somewhat ovate in shape, middle lobe dilated at the extremity and much crisped, deep purple. *Column* linear, almost semicylindrical, incurved. *Anthers* with eight cells and eight ovate, waxy, deep yellow *pollen masses*, attached to a common, pulverulent stalk. *Germen* clavate, rather short, slightly twisted.

My kind and obliging friend, Mr. HENRY SHEPHERD, has, I think, correctly considered this as distinct both from BLETIA *verecunda* and BLETIA *florida*. Independent of the pale colour of the flower, the segments of the perianth are all remarkably acute, and the outer and lower ones are always furnished with a strong central lamina. The bracteas, too, are, comparatively large, and the scape is very tall, and divided upwards into long branches. BLETIA *verecunda* and BLETIA *florida*, its nearest allies, are natives of the West Indies ; this of South Carolina, whence it was directly received at the Liverpool Botanic Garden. It may possibly be the B. *(Cymbidium) verecundum* of the North American authors : and it is, I think, certainly, the LIMODORUM *altum* of JACQUIN ; there the petals are acute, and the elevated line or lamina is distinctly represented in the figure.

Fig. 1. Flower with the Perianth forced back. 2. Lip. 3. Column. 4. Pollen-masses : *magnified*.

3218.

W. J. H. del.

Pub. by S. Curtis, Glazenwood Essex. Feb.y 1. 1833.

Swan Sc.

(3218)

Loasa Placei, *var.* β. Mr. Place's Loasa: *var.* β.

* * *

Class and Order.

Polyadelphia Polyandria.

(Nat. Ord.—Loaceæ.)

Generic Character.

Calycis tubus ovario adhærens, *limbus* persistens, 5 partitus, æqualis. *Petala* 5, lobis, cal. alterna, breviter unguiculata, concava. *Squamæ* 5 petaloideæ, petalis alternæ, bi- aut trilobæ, in conum conniventes et basi intus filamentis 2 sterilibus instructæ. *Stam.* 200, exteriora 10 sterilia, cætera in phalanges 15—17-andras petalis oppositas disposita; antheris erectis bilocularibus. *Stylus* apice trifidus. *Capsula* turbinato-oblonga, 1-locul., apice 3-valvis calyce coronata valvis margine placentiferis, placentis ideo cum vicina continuis. *Semina* ovalia creberrima reticulata. *D C.*

Specific Character and Synonyms.

Loasa* *Placei;* suberecta dichotoma setis pungentibus ubique tecta, foliis sinuato-pinnatifidis incisis inferioribus cordatis albo-maculatis longe petiolatis superioribus oblongis acuminatis oppositis sessilibus, calycibus petalisque reflexis.

Loasa Placei. *Lindl. in Hort. Soc. Trans. v. 6. p. 95. Hook. et Arn. in Bot. Misc. v. 3. p. 329.*

Loasa acanthifolia. *Lindl. in Bot. Reg. t.* 785. (not Lam.)

(β.) foliis minus profunde pinnatifidis, floribus minoribus.

Descr. *Stem* herbaceous, three to four feet high, much branched, *branches* rounded, clothed with long hair-like strings, stings, dichotomous. *Radical leaves* cordate, cut into many (eleven to thirteen) rather deep, somewhat rounded lobes, much and irregularly toothed at the margin, and ciliated with long stings; very veiny, veins reticulated, the areolæ each bearing a sting, the poison-bag at the base of which is seated upon a white, circular spot, where the epidermis seems loose or separated from the parenchyme beneath: *petioles* long, clothed with numerous stings, as is the back of the leaves, (which is of a paler colour) but principally on the nerves. The leaves gradually become narrower, more acute, more sharply lobed, more sessile in the upper part of the stem, till they assume an ovato-lanceolate figure, and are quite sessile, small, and acuminate at the dichotomies. *Flowers* rather small for the size of the plant, solitary from the axils of the upper leaves and from the forks of the branches, erect in bud, drooping when expanded. *Calyx* reflexed, of five lanceolate, acuminated, hispid, leaves. *Petals* five, strongly reflexed, obovate, ventricose, their sides and extremity inflexed, notched at the very apex. *Stamens* in five bundles, each of many *stamens*, and placed opposite to the petals, of which those which have not discharged the pollen stand erect: the rest lie back in the petal. *Filaments* white: *Anthers* yellow, four-sided. Alternating with these five bundles, are five white, ovate, bifid *glands*, hollow within, externally marked with a red band, and bearing at the base five lamellated setæ.

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* A name of Adanson, of unknown origin.

Seeds of this Loasa were sent to the Glasgow Botanic Garden from Aconcagua in Chili, by Dr. Gillies, and they have flowered in the open border during the latter part of the summer and autumn. It differs from the true L. *Placei* of Mr. Lindley, as figured in the Botanical Register, in its shorter and broader leaves, and more obtuse and shorter lobes, and in the smaller flowers. The white spots on the older aud lower leaves give the plant a remarkable appearance.

Fig. 1. Portion of a Flower. 2. Anther. 3. Gland, with its appendages: *magnified.*

3219.

W: J. H. del^t

Pub. by S. Curtis Glazenwood Essex Feb^y 1. 1832

Swan sc.

POMADERRIS ANDROMEDÆFOLIA. ANDROMEDA-LEAVED POMADERRIS.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—RHAMNEÆ.)

Generic Character.

Cal. semiadhærens 5-fidus. *Pet.* 5 squamiformia, concava, rarius nulla. *Stam.* lobis cal. alterna iisque breviora, in petalorum cavitate juniora abscondita. *Discus* nullus. *Stylus* brevissimus triqueter. *Stigmata 3. Capsula* 3-cocca, 3-sperma, cocculis interne planiusculis foramine maximo per membranam tenuem tardius solutam clauso instructis. *Semina* erecta.—Arbusculæ *aut* Frutices *e* Nova Hollandia *orti, foliis alternis subtus incanis, habitus* Ceanothi *ad quod Genus valde accedit. D. C.*

Specific Character and Synonym.

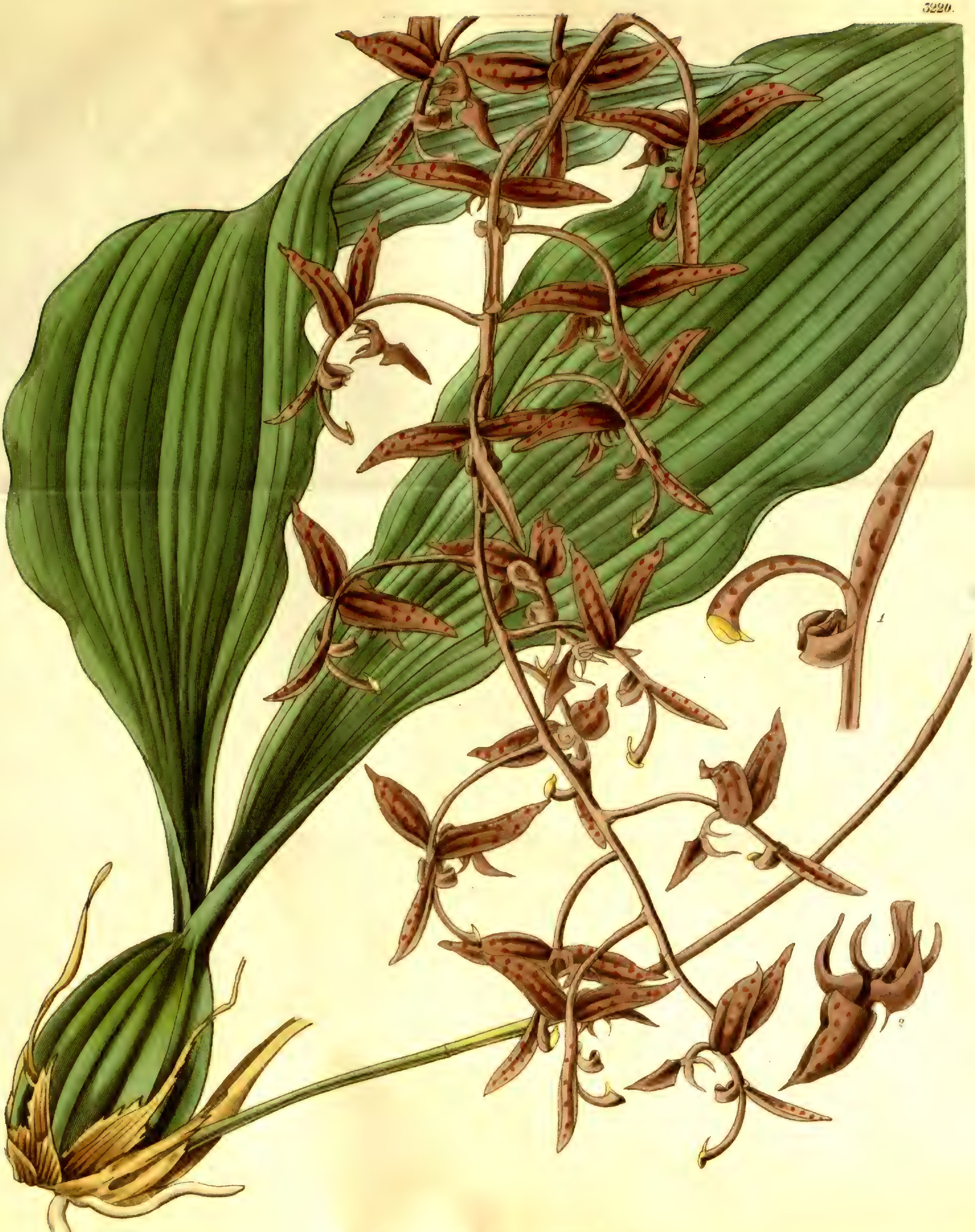
POMADERRIS *andromedæfolia;* foliis lanceolato-ovalibus glabris subtus niveo-tomentosis, corymbis terminalibus confertis calycibus petalisque reflexis. *Cunningh.*

POMADERRIS andromedæfolia. *Cunningh. in Field's N. S. Wales, p.* 351.

DESCR. A branched *shrub;* older *branches* dark gray and glabrous, younger ones downy, somewhat silky, often with a ferruginous tinge. *Leaves* in general, about an inch and a half long, elliptical, lanceolate, petiolate, acute with a mucro, subcoriaceous, glabrous above and dark-green, below clothed with an appressed white down, approaching to ferruginous in the younger ones. *Flowers* forming rather small, dense, terminal *corymbs,* having brown, membranaceous, caducous *bracteas* at the base of the pedicels. *Calyx* tawny, somewhat rotate, silky without, glabrous within, the short *tube* scarcely at all adhering to the *ovarium ;* the *limb* of five oblong, reflexed segments. *Petals* spathulate, the lamina dentato-serrate, concave, closely reflexed, pale yellowish-white. *Stamens* opposite the petals, erect or nearly so, longer than the style. *Anthers* oblong. *Germen* or *ovary* scarcely at all inferior, silky ; *Styles* three, linear, combined at the base ; *Stigmas* three, acute, hairy.

Another of the numerous novelties discovered by Mr. Allan Cunningham in the more elevated and rocky parts of the Blue Mountain ranges of New Holland ; where, indeed, it is very common. Specimens were obligingly communicated by Mr. Aiton, from the princely gardens of Kew, (to which it was introduced by Mr. Cunningham, in 1823,) in April, 1832.

Fig. 1. Flower. 2. Petal. 3. Pistil : *magnified.*



W. J. H. del.
Pub. by S. Curtis. Glazenwood. Essex. Mar. 1. 1833.
Swan Sc.

GONGORA ATRO-PURPUREA. DARK-FLOWERED GONGORA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Petala 3 exteriora patentissima lanceolata subuniformia, superiore dorso columnæ inserto, duobus interioribus parvis ad marginem columnæ insertis decurrentibus. *Labellum* vomeriforme subpedicellatum basi superne dentatum, inferne gibbosum. *Columna* elongata. *Massæ pollinis* 2, pedicellatæ.

Specific Character and Synonyms.

GONGORA[*] *atro-purpurea;* petalorum trium exteriorum marginibus reflexis, labello superne subseptem-dentato.

GONGORA atro-purpurea. *Hooker, Ex. Fl. t.* 178. *Spreng. Syst. Veget. cur. post. p.* 308.

DESCR. From an oblong and cylindrical, deeply sulcated, fleshy, bulbiform *stem,* there spring at the extremity two rather large, ovato-lanceolate, striated and subplicated *leaves,* waved at the margin, and tapering at the base. *Scape* two feet in length, arising apparently from the base of the bulb, zigzag, slender, glabrous, terete, dark purple. *Bracteas* minute, at the base of each flower. *Flower* wholly of a deep purple-brown or chocolate colour. The three *outer petals,* an inch long, are much spreading, lanceolate; the upper one springing from the back of the column rather the smallest, the two lateral ones with a large tooth-like process at the base of the upper margin; all the margins revolute. Two *inner petals* very small, incurved, with an acuminated, and twisted apex, fixed by its decurrent base to the margin of the column, near the base of the superior and outer petals, and at some distance from the two lowermost, outer ones. *Lip* of so curious a form, as to be more easily represented in a figure than described in words. It is nearly an inch long, standing out at right angles from the flower; having a cylindrical peduncle or stalk at the base, at the apex of which are four large, curved horns or tooth-like processes, two obtuse and two acuminated; there is an aperture within the base of each of the latter, and between them two small, upright teeth. The extremity of the labellum is a laterally compressed, and consequently vertical plate, double at its upper edge and sharp, obtuse at the lower edge, and gibbous at its base, acuminated at the extremity. *Germen* two to three inches in length, curved, pedunculiform, not twisted. *Column* very long, semicylindrical, broadest upwards, and bearing upon its back and sides the three upper petals. *Anther* terminal, operculiform, deciduous, with two obscure cells, containing two oblong, but below tapering, deep yellow, waxy, solid *pollen-masses,* fixed by their base to an oblong, white gland, which forms a beak from beneath the anther, before the falling of the latter.

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[*] Named in honour of ANTONIO CABALLEROY GONGORA, a Spaniard, and friend of MUTIS.

This rare plant likewise, has been communicated by Messrs. SHEPHERDS from the Liverpool Botanic Garden, where it was introduced by CHARLES PARKER, Esq. from Demerara. It is evidently the same species as the G. *atro-purpurea* figured in the Exotic Flora, from Trinidad, differing only in the somewhat paler and spotted flowers.

The present plant is so closely allied to the Genus CIRRHÆA of Mr. BROWN, that I scarcely know how they can be distinguished. The latter Genus includes the CYMBIDIUM *dependens* of Mr. LODDIGES, and my GONGORA *viridi-purpurea*: and Mr. LINDLEY attributes " a stigma occupying the apex of the column, and the anther situated at the back of the column:—but whatever may be the case with the CIRRHÆA *Loddigesii,* (CYMBIDIUM *dependens,*) I have shown that in the C. *viridi-purpurea* (Bot. Mag. t. 2978. f. 5.) the proper situation of the anther is to be terminal, though frequently when detached it is suspended at the back of the column: the same peculiarity I have observed in G. *atro-purpurea.* They all belong to Mr. LINDLEY's tribe of VANDEÆ.

Fig. 1. Column with three of the Petals. 2. Labellum.

3221.

W. J. H. delt.

Pub. by S. Curtis, Glazenwood Essex Mar. 1.1833.

Swan Sc.

COBURGIA FULVA. TAWNY COBURGIA.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—AMARYLLIDEÆ.)

Generic Character.

Perianthii tubus curvatus, cylindricus, subventricose ampliatus; limbus tubo brevior, æqualis, semipatens, cernuus. *Staminum filamenta* æqualia, recta vix conniventia e membrana tubulosa 6-fida orta, laciniis bidentatis bifidis, filamentis alternantibus; *antheræ* erectæ. *Germen* inferum ovatum, triquetrum, 3-locularis; loculis pluri-ovulatis, ovulis biseriatim dispositis. *Stylus* filiformis. *Stigma* obtusum.

Specific Character and Synonym.

COBURGIA* *fulva*; umbella subquinqueflora, perianthii aurantiaci laciniis ovatis apice viridi-maculatis, scapo ancipite elongato, foliis elongatis lineari - ligulatis striatis obtusis.

COBURGIA fulva. *Herbert, in Bot. Register, t.* 1497.

DESCR. *Bulb,* according to Mr. WILLIAMS, eight inches in diameter, elongated upwards into a neck, seven inches in length, clothed with dark brown, satiny scales, and these bearing about six linear, ligulate, striated *leaves,* an inch and a half broad, and a foot and a half or more in length, slightly narrower and obtuse at the point. *Scape,* from the centre of these leaves, two feet long, erect, ancipitate, bearing at its summit an umbel of four to five, large and handsome

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* Named in compliment to His Royal Highness Prince LEOPOLD of Saxe Coburg, now King of Belgium.

some drooping *flowers*, enclosed in a large, two-leaved, membranaceous, striated, green *spatha*, with a pale border, and having two or three linear-oblong, membranaceous *bracteas*. *Pedicels* short. *Perianth* orange-coloured, with a reddish tinge. *Tube* very long, enlarged above the middle. *Limb* campanulate, of five ovate segments, the three outer ones rather larger, more acute, and terminated with a fleshy mucro, all of them tipped with a green spot. *Staminal crown* a short, fleshy tube, inserted at the base of the limb, six-cleft, each segment truncated, bidentate, green at the extremity. In the sinuses of these segments the stamens are inserted. *Filaments* rather shorter than the limb of the perianth, erect. *Anthers* oblong, dorsally inserted, purplish-brown ; *Pollen* deep yellow. *Germen* broadly ovate, obtusely trigonal, three-celled, the cells containing many oblong *ovules* fixed to the central axis, and arranged in two rows. *Style* longer than the stamens ; *Stigma* obtuse, slightly inclined.

Obligingly communicated by Mr. WILLIAMS from the fine collection of JOHN WILLMORE, Esq. at Oldfield, near Birmingham, in December, 1831, its usual season of flowering, with the observation, that the bulbs were purchased four years previously at Liverpool, and first cultivated by him at Oldfield, whence he has distributed it to Spofforth and other collections, and that a temperature of 45° seems most favourable to its blossoming in perfection.

Its native country is probably some part of South America.

Fig. 1. Staminal Crown. 2. Germen. 3. The same cut through transversely : *magnified.*

3222.

W. J. H. del.

Pub by S. Curtis Glazenwood Essex Mar 1 1833

Swan Sc.

MYRSINE CAPITELLATA. CLUSTER-FLOWERED MYRSINE.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—MYRSINEÆ.)

Generic Character.

Flores polygami, dioici. *Cor.* 5- raro 4-fida. *Antheræ* subsessiles. *Ovarium* ovulis definitis (4—5). *Stigma* sæpius lobatum v. laciniatum. *Drupa* pisiformis, putamine crustaceo, monospermo.—Frutices *vel* Arbusculæ. Folia *alterna coriacea.* Flores *axillares, aggregati, subumbellati.* Corolla *in plerisque 5-partita, nunc breviter tubulosa.* Masculi *majores stigmate simplici.* Fœminei *antheris minoribus effætis. Br.*

Specific Character and Synonyms.

MYRSINE* *capitellata;* arborea, erecta, foliis oblongo-lanceolatis integerrimis coriaceis, floribus sessilibus in capitulis axillaribus, stylo longo crasso, stigmate obtuso glabro integro. *Wall.*

MYRSINE capitellata. *Wall. in Fl. Ind. Occ. v. 2. p.* 295. *Spreng. Syst. Veget. cur. post. p.* 69.

DESCR. The plant from which our specimen was taken, is a young one, only four years old, and forms a handsome *shrub,* four feet in height; but, in its native country, it becomes a *tree* thirty to forty feet high. *Leaves* five to six inches long, oblongo-lanceolate, rather acute, coriaceous, shortly petioled, quite entire, dark green above,

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* A Greek name, synonymous with Myrtle; and applied to this plant from the similarity of its foliage.

much paler beneath, dotted at the margin with ferruginous points, veins numerous, parallel, obscure. *Flowers* small, pale yellowish-green, collected into axillary, sessile, crowded heads, appearing lateral from the frequent falling away of the leaves. *Bracteæ* brown, membranous, appressed. *Calyx* quinquefid. *Corolla* five-cleft, its segments reflexed, and these as well as those of the calyx are often sprinkled with rust-coloured dots. All the flowers appear to be female. *Anthers* rather large, inserted in the tube of the corolla, and opposite to the segments, sagittate, sessile, dull orange, probably abortive. *Germen* globose. *Style* very large, long and thick in proportion to the size of the flower, filling up the tube and much exserted; *Stigma* sometimes slightly bifid or ragged.

Introduced from Nepal, in 1828, by Dr. WALLICH, to the Liverpool Botanic Garden, whence our specimens were communicated in full flower, in January, 1833. It is treated as a stove plant, and though the blossoms cannot boast of much beauty, the foliage is handsome, and of a deep rich green colour.

In Nepal, Dr. WALLICH assures us that the wood of this tree and that of M. *semiserrata* is of a chocolate colour, radiated, compact, and heavy, and much esteemed by the hill-people for various carpenter's works: the ripe fruits are also eaten.

Fig. 1. Flower, (female?). 2. Corolla of the same laid open. 3. Pistil: *magnified.*

3223.

Pub. by S. Curtis. Glazenwood, Essex March 1 1833.

Swan Sc

EUGENIA TRINERVIA. THREE-NERVED EUGENIA.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—MYRTACEÆ.)

Generic Character.

Calycis tubus subrotundus, *limbus* ad ovarium usque 4-partitus. *Petala* tot quot calycis lobi. *Stam.* numerosa, libera. *Ovarium* 2—3-loculare, loculis pluriovulatis. *Bacca* subglobosa, calyce coronata, matura, 1-rarius 2-locularis. *Semina* 1—2 subrotunda, grossa. *Embryo* pseudo-monocotyledoneus, *cotyledonibus* nempe crassissimis et omnino conferruminatis, *radicula* vix ac ne vix distincta, brevissima. Arbores *aut* Frutices, *pleraque ex insulis Caribæis aut America calidiora orta.* Folia *et* inflorescentia *nunc* Myrti *nunc* Myrciæ. *D. C.*

Specific Character and Synonyms.

EUGENIA* *trinervia;* pedunculis trifidis aut bis trifidis 3—7-floris folio brevioribus, bracteis sub flore oblongis ramulis calycibusque subhirsutis, foliis ovali-oblongis utrinque acuminatis superne adultis glabris subtus pubescenti-tomentosis trinerviis, nervis lateralibus submarginalibus.

EUGENIA trinervia. *De Cand. Prodr. v. 3. p.* 279.

MYRTUS trinervia. *Sm. in Linn. Trans. v. 3. p.* 280. (non Lour.) *Spreng. Syst. Veget. v. 2. p.* 482.

DESCR. A much branched *shrub,* with red-brown, downy *branches. Leaves* two to three inches long, opposite, on

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* In honor of Prince EUGENE of Savoy, a patron of Botany.

short, downy petioles, ovato- or ovali-elliptical, slightly acuminate, subcoriaceous, quite entire, with three strong, parallel nerves, dark green above, and downy only in a young state, pale beneath, pubescent, but chiefly so on the nerves. *Peduncles* axillary, once or twice trifid, longer than the petioles, but considerably shorter than the leaves. *Flowers* much smaller than those of the common Myrtle. *Petals* white, soon reflexed. *Style* reddish.

From the rich collection of Kew, where it first flowered in April, 1827, and to which place it was introduced in 1824, by Mr. ALLAN CUNNINGHAM, from New South Wales.

Sir JAMES E. SMITH, its first describer, says of it, that although the teeth of the calyx and the petals also are generally but four, it is a true MYRTUS and not an EUGENIA, the fruit being a berry, with many shining, gibbous, curved seeds. DE CANDOLLE, however, refers it to his EUGENIA, but doubts if it should not constitute a distinct Genus. In its three nerves, and general appearance, this plant is allied to MYRTUS *tomentosa*.

The drawing, from which the figure is made, was, as well as the specimens, obligingly communicated by W. T. AITON, Esq.

Fig. 1. Flower: *magnified.*

3224.

W. J. H. del.

Pub by S. Curtis Glazenwood Essex Mar 1 1833.

(3224)

SYMPLOCARPUS FŒTIDUS. STINKING SYMPLOCARPUS, Skunk Weed, or Skunk Cabbage.

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Class and Order.

TETRANDRIA MONOGYNIA.

(Nat. Ord.—AROIDEÆ.)

Generic Character.

Spatha ventricosa, ovata, acuminata. *Spadix* subglobosa, floribus hermaphroditicis tecta. *Cal.* profunde 4-partita, persistens, segmentis cucullatis, truncatis, demum crassis, spongiosis. *Pet.* o. *Stylus* pyramidalis, tetragonus ; *Stigma* simplex, minutum. *Semina* solitaria receptaculo spongioso immersa. *Nutt.*

Specific Character and Synonyms.

SYMPLOCARPUS* *fœtidus.*
SYMPLOCARPUS fœtidus. *Nutt. Gen. Am. v.* 1. *p.* 105. *Torrey, Fl. of Un. St. v.* 1. *p.* 181.
ICTODES fœtidus. *Bigel. Am. Med. Bot. v.* 2. *p.* 41. *t.* 24. *Fl. Bost. ed.* 2. *p.* 59.
POTHOS fœtidus. *Mich. Am. v.* 2. *p.* 186. *Pursh, Fl. Am. v.* 2. *p.* 398. *Sims in Bot. Mag. t.* 836, (imperfect). *Spreng. Syst. Veget. v.* 3. *p.* 766.
DRACONTIUM fœtidum. *Linn. Sp. Pl. p.* 1372. *Willd. Sp. Pl. v.* 2. *p.* 288.

DESCR. *Root* perennial, large, fleshy or almost woody, annulated, abrupt, dark brown, throwing out numerous long, tawny, fleshy fibres, thicker than a swan's quill, which descend deep into the ground. In the early spring, from the crown of this root arise two *flowers*, surrounded at the base by large, membranaceous sheathing *bracteas*, and the incipient *leaves*. These flowers have so singular an appearance, that, at first sight, they might rather be taken for an artificial production, or even for a shell of the Genus CYPRÆA, than for any thing of a vegetable nature, were it not for their powerfully fetid smell: A short *peduncle*, much shorter than the bracteæ, bears a broadly ovate, acuminated, involuted both at the sides and at the extremity, *spatha*, of which the ground colour is yellow, but so spotted and blotched with dark purple, as sometimes nearly to obliterate the original tint, within it is wholly blackish purple. This surrounds a subglobose, purple, shortly pedunculated *spadix*, not above an inch in length, and not much bigger than a good-sized nutmeg, its circumference entirely formed by the flowers. These, considered according to the artificial system, consist of a *perianth* of four erect scales or pieces, remarkably concave and depressed at the top, where they are purple, while their sides are yellow, and they are so placed and so shaped, that their edges meet, and they form a square flower, through the centre of which, the tips of the bright yellow *stamens*, and purplish *style* are only slightly protruded. *Stamens* four, each lodged in the cavity of a scale of the perianth. *Filament* very short. *Anther* broadly ovate, two-celled, cells opening longitudinally, and facing the scale, while the back is directed to the pistil or centre of the flower. *Germen* small, almost entirely sunk in the receptacle. *Style* lineari-pyramidal, four-sided at the base, terete above, where it is terminated by the small stigma, a mere discoloured point. "After the *spatha* decays, the *spadix* continues to grow, and with it every part of the flower except the anthers. When the fruit is ripe, the *spadix* has attained to many times its original dimensions, while the calyx, filaments, and style are larger, very prominent, and separated from each other. Within the spadix, at the base of each style, is a round fleshy *seed*, as large as a pea, white, tinged with green and purple, invested with a separate membranous coat, and with a prominent corculum, situated in a depression at the top." *(Bigel.)* The leaves do not appear till some time after the flowers, and they have not attained their full size till the spatha has decayed. They are broadly cordate, petiolate, acute, with numerous and branching veins, which are prominent beneath, the mid-rib very broad. *Petiole* also broad, hollowed in front, sheathing at the base.

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* συμπλωκη, an *union,* and καρπος, *fruit,* from their being combined with the Receptacle into one body.

Perhaps there is not a more unsatisfactory figure in all the Fifty-four volumes of the Botanical Magazine than that of this singular plant at t. 836, under the name of Pothos *fœtida*, so that a more perfect representation and fuller description than are there given, cannot, we think, be unacceptable to our subscribers. It is a native of North America, from Canada to Carolina, according to Nuttall, and was introduced in the year 1735 to our gardens, where it proves perfectly hardy; the flowers appearing above ground along with the earliest spring plants, and those are succeeded by the foliage. In the northern parts, whence I have received a fine specimen from my inestimable friend Dr. Boott, and in the middle of the United States, scarcely a meadow or swamp is found in which this vegetable may not be discovered at a distance, especially in the spring season, by its large tufts of rank, crowded leaves.

It has derived its name of *Skunk Cabbage*, or *Skunk-weed*, from the intolerably fetid smell, resembling that of the animal so called, or *Viverra mephitis*. Hence too, Professor Bigelow has called it Ictodes, from εκτις, a *weasel*, and οζω, *to smell*: but this change of name is quite needless, as the previously established one of Symplocarpus is not intended to express, as might at first be imagined, and as Dr. Bigelow supposed, that the fruit resembles that of a Symplocos, but simply the *union of the fruit* into one compact body. The odour which characterizes this plant is not peculiar to it. The fruit of some of the North American Currants, Dr. Bigelow tells us, especially the Ribes *ringens* of Michaux a species often met with on the high mountains of the Eastern States, emits, when bruised, a scent exactly similar.

As in other plants of the same natural family, the roots abound in an acrid principle, even when dry, but which is readily dissipated by heat. In America, Dr. Cutler of Massachusetts was the first to recommend the use of the pounded roots in asthmatic complaints, having found it eminently serviceable in his own case, and it has since been employed, not only in that afflicting disease, but in catarrh and chronic coughs, and with evident benefit. Dr. Bigelow, however, candidly observes, that it should be administered with much caution, as, when the stomach has been delicate, he has observed it to occasion vomiting when exhibited even in a small quantity. A dose of thirty grains has been found not only to excite vomiting, but to produce headache, vertigo, and temporary blindness.

The germination of this plant is very curious, and has been thus described by Mr. NUTTALL. "The seed does not appear to possess any thing like a proper *cotyledon;* the *embryo*, formed in the exact posture of the growing plant (with the radicle downwards), differs not from it in any particular but that of size. In place of a cotyledon there is a sheathing *stipule,* similar to that which is ever after produced; in fact, it is viviparous. The *embryo* is seated in a small umbilical or hemispherical depression, in the upper end of what may be called a *vitellus* rather than a perisperm, judging by its functions: this *callus,* or seminal tubercle, is roundish and turbinate, nearly as large as a filberd nut, very solid and carneous, possessing, in a high degree, the alliaceous fœtor of the grown plant; the mutual point of attachment subsisting between this body and the embryo is, at first, a minute and nearly central *funiculus*, which enlarges and becomes more distinct during the progress of germination; but what appears to be most singular with respect to it is the length of time that it continues attached to the growing plant, lying apparently inert at the base of the caudex for twelve, or even eighteen months."

Fig. 1. Flowering Plant, *nat. size.* 2. Spadix, *ditto.* 3. The same, *magnified.* 4. Single Flower removed from the Spadix. 5. Scale of the Perianth with its Stamen. 6. Front view of a Stamen. 7. Pistil: the Germen being imbedded in the Receptacle. 8. Style and Stigma, or all of the Pistil that is seen above the Receptacle:—more or less *magnified.*

3225.

W. J. H. del!

Pub. by S. Curtis, Glazenwood Essex. May 1.1833.

Swan Sc.

BEGONIA RENIFORMIS. KIDNEY-LEAVED BEGONIA.

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Class and Order.

MONŒCIA POLYANDRIA.

(Nat. Ord.—BEGONIACEÆ.)

Generic Character.

MAS. *Cal.* o. *Cor.* polypetala, petalis plerumque 4, inæqualibus. FŒM. *Cal.* o. *Cor.* petala 4—9, plerumque inæqualia. *Styli* 3, bifidi. *Caps.* triquetra, alata, trilocularis, polysperma.

Specific Character and Synonyms.

BEGONIA *reniformis*; caulescens, foliis reniformibus angulatis dentatis, capsulæ ala maxima acutangula, reliquis parallelis minimis. *Dryan.*

BEGONIA reniformis. *Dryandr. in Linn. Trans. v.* 1. *p.* 161. *t.* 14. *f.* 1, 2. *Spreng. Syst. Veget. v.* 2. *p.* 625.

DESCR. *Stem* three to four feet high, the thickness of one's finger, fleshy. *Leaves* large, upon petioles as long as themselves, reniform, with a deep sinus, in comparison with other species of the Genus, very slightly unequal, many-angled, serrated, somewhat pubescent, opaque, marked with numerous veins, which are sunk on the upper surface; prominent beneath; green on both sides, but much paler beneath. The larger leaves are nearly a span in diameter. *Peduncle* six to eight inches long, terminated by a di-trichotomous *Cyme*, the ultimate branches umbellate and very slender, white. *Flowers* white, small, slightly downy. Of the *male*, the *Corolla* consists of four unequal, pure white *petals*, two of them orbicular or inclining to heart-shaped, two oblong and much smaller. *Anthers* numerous, yellow. *Female flowers* few in the specimens before me, very small, the *petals* closed. *Germen* with one large, white, almost triangular wing, and two obsolete ones.

From the Botanic Garden of Liverpool, whence it was communicated as having been received from Professor LEHMAN, of Hamburgh, under the name of B. *grandis* ; but there is already a Japanese species of that name, and certainly very different from our's, which, moreover, appears to me to accord with the B. *reniformis* of DRYANDER, a native of Brazil, the native country also probably of our plant.

It is a good deal allied to the B. *longipes* of this work, t. 3061, especially in the general structure of the inflorescence ; but in that species, the flowers are considerably larger, the leaves are much more oblique, and extremely glossy, and quite glabrous above.

B. *reniformis* requires the heat of the stove, and its flowering season is January.

It is quite impossible, by a drawing, to convey an idea of the peculiar pearly and semi-transparent appearance of the blossoms, and of the panicle in which they are borne.

Fig. 1. Female Flower, considerably *magnified.*

3226.

Pub. by S. Curtis Glazenwood, Essex, Mar. 1. 1833

Swan Sc.

LEDEBOURIA HYACINTHINA. HYACINTH-LIKE LEDEBOURIA.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—SMILACINÆ. *Boyle.*)

Generic Character.

Cor. 6-petala: petalis basi staminiferis, persistentibus. *Germen* 3-partitum, pedicellatum, subrotundum. *Stylus* capillaris, simplicissimus: stigmate acuminato. *Utriculi* 3 basi connexi, monospermi; 2 sæpe abortivi, et tunc 1 obovatus, subcurvatus. *Roth.*

Specific Character and Synonyms.

LEDEBOURIA[*] hyacinthina.
LEDEBOURIA hyacinthina. *Roth, Nov. Sp. Ind. Or. p.* 195. *Sprengel, Syst. Veget. v.* 2. *p.* 97. *Wall. Cat. of Pl. in E. I. C. Mus. p.* 180.
MELANTHIUM hyacinthinum. *Heyne, MSS.*
ANTHERICUM hyacinthoides. *Willd. MSS.*
ERYTHRONIUM Indicum. *Rottler* (according to *Sprengel*).

DESCR. *Bulb* ovate, tunicated, about the size of a nutmeg, coats membranaceous, pale brown. *Leaves* five or six in number, four to five inches long, broadly lanceolate, waved, entire, glabrous, dark green above, with deeper spots, the underside pale and glaucous, finely striated, below tapering into a sort of membranaceous, silky petiole: *Scape* one or two, arising from the summit of the bulb, bearing a raceme of many drooping *flowers*. *Pedicels* red. *Petals* greenish-white, reddish at the base, oblong, acute, patent as far as the middle. *Stamens* inserted, red : *Anthers* subglobose. *Germen* on a short stalk, lobed. *Style* red, straight. *Stigmas* obtuse.

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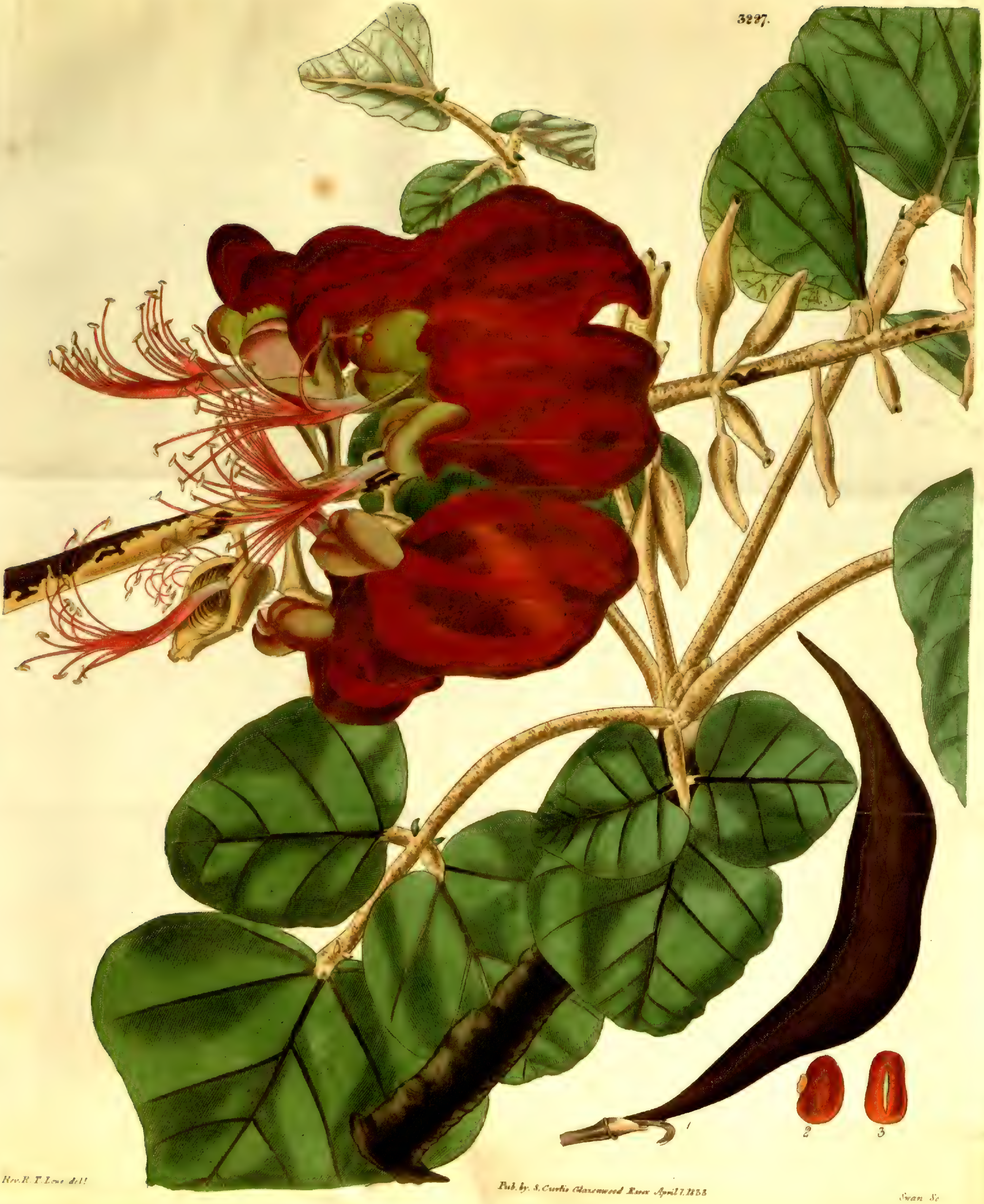
[*] In honour of C. F. LEDEBOUR, author of Travels in the Altaic Mountains, and of a Flora Altaica.

This interesting little bulbous plant is a native of the East Indies, and is well worthy of being introduced, as it might easily be, to our collections. Indeed some of the bulbs of the specimens brought home by Dr. WIGHT, are not destitute of life, and are planted in the Glasgow Botanic Garden. That gentleman, to whom we are indebted for the drawing here given, which was made by a native artist, states that LEDEBOURIA *hyacinthina* is very abundant at Masulipatam, less frequent about Madras. In the neighbourhood of Alamparua it is also common, growing in moist pasture grounds, where the ends of its leaves, which curve backwards, touch the soil, take root, and produce new bulbs. Mr. BOYLE finds it at Bundelkund.

Fig. 1. Flower. 2. Pistil:—*magnified.*

3227.



Rev. R. T. Lowe del.

Pub. by. S. Curtis Glazenwood Essex April 1. 1833

Swan Sc

ERYTHRINA VELUTINA. VELVETY ERYTHRINA.

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Class and Order.

DECANDRIA DIADELPHIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Cal. tubulosus ore truncato subdentato aut spathaceus. *Corollæ vexillum* longissimum, oblongum, *alæ* et *carina* dipetala vexillo multo breviores. *Stamina* diadelpha, recta, decimo nunc cæteris subcoalito nunc libero alis multo breviore aut rarius deficiente. *Legumen* longum, torulosum, bivalve, polyspermum. *Semina* ovata, hilo laterali.—Arbusculæ *aut* Frutices, *rarius* Herbæ. Stipulæ *parvæ a petiolo distinctæ.* Folia *petiolata unijuga cum impari, foliolis loco stipellarum glandulis basi stipatis.* Caules *et* petioli *interdum aculeati.* Racemi *elongati, pedicellis sæpe ternatim approximatis.* Flores *rubro-coccinei.* Semina *sæpius rubro et nigro mixta nitida. D C.*

Specific Character and Synonyms.

ERYTHRINA * *velutina;* caule arboreo ramisque sparsim spinosis, racemis petiolis foliolisque furfuraceo-tomentosis inermibus, foliolis obtusissimis basi subcordatis terminali deltoideo, lateralibus rotundatis, calycibus campanulato-spathæformibus hinc fissis 5-denticulatis subcoriaceis densè furfuraceo-tomentosis, vexillo ovali magno lato reflexo, staminibus submonadelphis longissime exsertis, carinæ obtusissimæ alarumque petalis imbricatis concavis exsertis calyce longioribus. *Lowe.*

ERYTHRINA velutina. *Willd. Nov. Act. Berol. v. 3. p.* 426. *Willd. Sp. Pl. v. 3. p.* 904. *De Cand. Prodr. v. 2. p.* 412.

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* Ερυθρος, *red;* from the fine red colour of the flowers of most of the species.

412. *Humb. Nov. Gen. Am. v.* 6. *p.* 435. *Spreng. Syst. Veget. v.* 3. *p.* 244. *(non Jacq. Hort. Schoenbr.)*

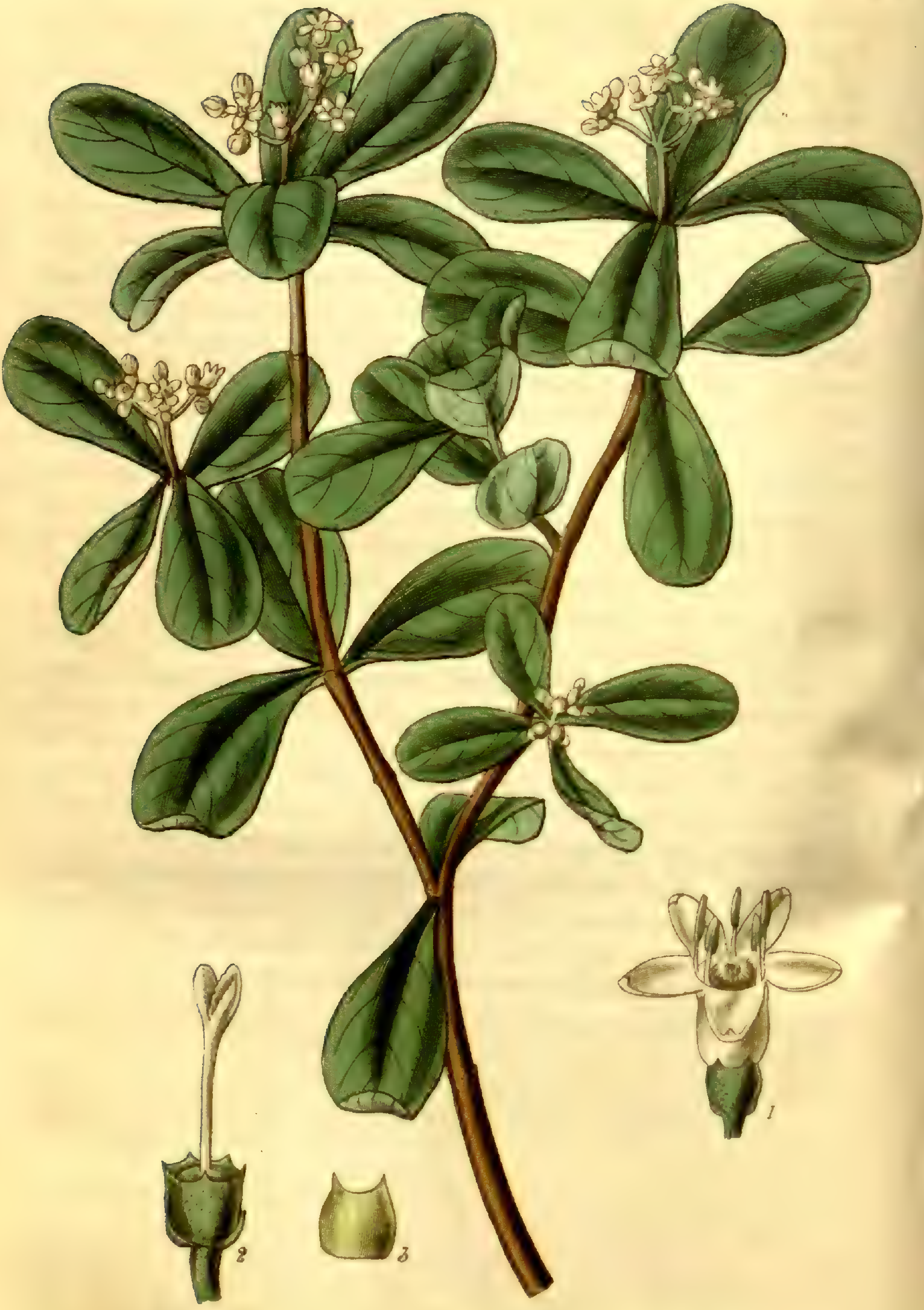
Descr. A *Tree* about thirty feet high, with a cylindrical, straight *trunk,* seven or eight inches in diameter, unbranched, in the single individual observed, to a considerable height, twelve feet or more, covered with a smooth and even olive-blackish *bark,* and furnished with a few scattered, distant, single, very short and small, but strong, thick, conical, straight spines, three-fourths of an inch long, each seated on a small knob. *Branches* spreading, but not peculiarly straggling, nor with the stunted habit of E. *Crista Galli,* L., few in number, distant, elongated, somewhat simple and straight, growing mostly horizontally, and forming an irregular, spreading head of fine, densely-clustered, bright green foliage; armed with spines similar to those of the trunk, except those of the last year's growth, which are unarmed, thick in proportion to their length, strongly wrinkled upwards annularly, and marked with the scars of the fallen petioles; otherwise smooth, and of a dark olive-green. *Leaves* deciduous in Madeira, the tree continuing naked from December to June, produced in tufts at the ends of the branches, coming out at the same time, but on different branches from those which produce the flowers, of a dark but bright green. *Stipules* (at the base of the petiole) very small, membranous and quickly deciduous, densely furfuraceous, ovato-acuminate. *Petioles* quite unarmed, round, five or six inches long, covered with a dense, furfuraceous, pale ferruginous, or tawny coat. *Petiolules* thickened, short, articulated upon the petioles, with a pair of minute, ovate, acute, fleshy, dark-green stipulets *(stipellæ)* at the joint of the terminal leaflet, and a single one on the outer or lower side of the joint of each lateral one. *Leaflets* three, large, covered, principally beneath and while young, with a copious furfuraceous, pale yellowish-brown tomentum, which on the upper surface at least finally wears off and nearly disappears: all very obtuse, subcordate, or truncate at the base, and slightly three-nerved; all the nerves pale, more furfuraceous than the rest, prominent beneath, quite straight, nearly simple. The terminal leaflet is subdeltoid or somewhat three-lobed, broader almost at the base than long, the three lobes rounded or very obtuse and shallow. The lateral leaflets are smaller and rounded, scarcely at all deltoid or three-lobed. *Racemes* unarmed, a foot long, conical, several at the ends of a leafless branch from the base of its terminal, yet unexpanded leaf-bud; widely divaricate, horizontal, and growing out at right angles with the branch, densely furfuraceo-tomentose in all its parts except the base of its main-stem, which is more or less naked, and dark blackish-purple on the upper side, and wherever the coat is accidentally rubbed off; the main stem is nearly as thick as the little finger at the base, then gradually attenuated, round throughout and perfectly straight. *Flowers* produced in June and July, very conspicuous, large, and handsome, in irregular, distant, partial whorls of from four to eight or thereabouts; the stamens and carina always directed towards the base of the raceme. *Bracteolas* at the base of the pedicels, scarcely visible, very minute or obsolete, quickly deciduous; none at the apex as in E. *poianthes, Brot. Pedicels* round, densely furfuraceous, generally three together, seldom more, occasionally only one or two, growing at right angles to the main stem, but irregularly all round it, half an inch long. *Flower-buds* elongated, round, sublageniform, their ends truncated obliquely. *Calyx* densely furfuraceo-tomentose, pale brown, of a leathery but soft substance, dimidiate, or splitting partly down on the upper side, and resembling a campanulate spatha; the lower lamina or limb or part opposite to the cleft, broad, wrinkled across, truncated obliquely, and with five irregular, blunt, shallow, nearly equal, small teeth. *Standard* reflexed, large, ample, as broad (an inch and a half to two inches) as long, bright orange-red *(red-lead* approaching to *vermillion)*; its limb broad oval scarcely notched, faintly lined or striated; the claw short, green at its base. Wings exserted, longer than the calyx, ovate, concave, imbricated and closing over the keel, about three-fourths of an inch long and half an inch broad; at first green, finally chesnut-red, their edge intense purple-red. The *two petals* of the *keel* are similar in shape and colour to the wings but smaller; they can scarcely be said to form any keel, but are imbricated beneath the two wings, their tips appearing a little beyond these last. *Stamens* submonadelphous; sometimes apparently diadelphous, nine and one, but the tube is only split a little farther down than usual, and the upper single stamen is united at the base with the rest. However, nine of the stamens are farther and more perfectly united to each other than to the tenth in most cases. The tube formed by their filaments is pale green or white at the base, deep crimson or purple upwards, cleft half-way down or more on the upper side; abruptly deflexed at the base, then straight and ascending, far exserted, *i. e.* an inch or more beyond the keel and wings. *Filaments* free for about half an inch below the anthers, smooth, deep purplish-red; five longer than the rest. *Anthers* small, brown. *Pollen* greenish-brown, subtrigonal, equilateral, the angles very obtuse or rounded. *Style* as long as the anthers, deep red. *Stigma* small, capitate. *Ovary* slender, elongated, tomentose, subcompressed. Not unfrequently there are two ovaries with their styles in one flower, which in other respects preserves its symmetry, except that the tube of the filaments is split farther down. *Ovules* numerous, but few come to maturity. *Pods* ripe in December; the only one I have ever seen was about three inches long and half an inch broad, two-seeded, oblong, compressed, contracted between the seeds, beaked at the apex, stipitate and attenuated at the base, perfectly smooth and even, or with a few faint, irregular veins or wrinkles, dark brown, gaping a little at the suture, on each side the edge of which runs a slight groove accompanied by a rib. Internally, it appears separated into as many large, irregular cells as there are perfect seeds: the spaces between them as well as the beak and the slender base of the pod being filled with a hard, spongy mass, like pith. *Seeds* much smaller than their cells, smooth and even, of a uniform vermillion-red, each with a regular equilateral, trapeziform or lozenge-shaped, black mark, rather larger and better defined than in E. *poianthes, Brot.*, close below the *hilum*, which is itself convex, with a fine groove down its middle, and dark-brownish: the *seeds* are of a tumid kidney shape, the back rounded, with a very slight trace of keel; one-third of an inch long and a quarter broad. The *Pods* are very rarely produced in Madeira, the flowers usually falling off together with their pedicels. This is the case indeed with all Erythrinæ here.

The only individual of this noble species which I have seen in flower is growing amidst a plantation of other rare exotic trees in the garden of the Quinta de Valle near Funchal, at a height of three hundred or four hundred feet above the sea. Of its particular history and introduction it is now impossible to learn any thing with precision. It was probably imported by a former proprietor of the place, Mr. J. Murdoch, with many other rare exotics, inmates of our stoves and greenhouses in England, which have now attained, in this favoured spot, the size and luxuriance of forest trees. *Lowe.*

I am indebted to the Rev. R. T. Lowe, for the above description, and for the drawing made from the living plant in Madeira. It is to be hoped that it will not be long ere our gardens are in possession of this splendid species.

Fig. 1. Legumen. 2, 3. Seeds:—*nat. size.*

3228.



W. J. H. delᵗ Pub. by S. Curtis Glazenwood Essex April 1 1833 Swan Sc.

(3228)

PSYCHOTRIA DAPHNOIDES. DAPHNE-LIKE PSYCHOTRIA.

* * *

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—RUBIACEÆ.)

Generic Character.

Cal. tubus ovatus, *limbus* brevis 5-lobus, 5-dentatus, aut subinteger. *Cor.* infundibuliformis, brevis, 5-fida, regularis, limbo patente aut recurvo, fauce barbata aut glabra. *Stam.* 5, antheris exsertis, aut in fauce inclusis. *Stigma* bifidum. *Bacca* drupacea, dipyrena, calycis limbo coronata, per exsiccationem obtuse 10-costata, pyrenis chartaceo-coriaceis costatis 1-spermis. *Semen* erectum, albumine cartilagineo, embryone parvo basilari.—Arbusculæ, Frutices, *rarius* Herbæ *æquinoctiales.* Folia *opposita, petiolata.* Stipulæ *variæ.* Pedunculi *nunc axillares, sæpius terminales.* Flores *paniculati aut corymbosi, rarius 4-meri, et interdum in iisdem individuis* 5 *et* 4-*meri.* *D C.*

Specific Character and Synonyms.

PSYCHOTRIA* *daphnoides ;* fruticosa dichotoma glabra, ramis furcatis precipue apicem versus foliosis, foliis obovatis basi attenuatis, stipulis suborbicularibus bidentatis parvis, corymbis terminalibus paucifloris, corollæ ore villoso.

PSYCHOTRIA daphnoides. *Allan Cunningh. in Hort. Reg. Kew.*

DESCR. Apparently a small *shrub,* with terete, forked, glabrous *branches.* *Leaves* opposite, about an inch long,

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* From ψυχη, *life,* and τρεφω, *to support ;* on account of the powerful medicinal properties of the PSYCHOTRIA *emetica.*

submembranaceous, quite entire, attenuated at the base and sessile. *Stipules* small, membranous, roundish, with two teeth at the extremity. *Flowers* in small, few-flowered, terminal, pedunculated *corymbs,* generally bearing three *flowers* at the extremity of each ramification. *Calyx* small, adherent with the ovary, subglobose, slightly downy, with two small *bracteas* at its base, and crowned with five minute teeth. *Corolla* somewhat hypocrateriform, pure white: the *tube* a little ventricose, clothed with hairs: the *limb* of five oval, concave, spreading, obtuse segments. *Stamens* much exserted. *Anthers* linear-oblong, pale grey. *Style* scarcely reaching to the mouth of the corolla, tipped with a rather large, bifid, glandular stigma.

An inhabitant of the margins of woods on the banks of Brisbane River, New Holland, where it was discovered by ALLAN CUNNINGHAM, Esq., and by him a living plant was introduced to the Royal Gardens at Kew, in 1829. A flowering specimen was obligingly transmitted by W. T. AITON, Esq. It requires a warm greenhouse, where it flowers in the month of April, at which time our specimens were communicated.

Fig. 1. Flower. 2. Pistil. 3. Stipules: *magnified.*

3229.

Mrs C. Horsfall del. Pub. by S. Curtis Glazenwood Essex April 1.1833. Swan Sc.

BRASSAVOLA NODOSA. FRAGRANT BRASSAVOLA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala et *Petala* subæqualia, libera, acuminata. *Labellum* cucullatum, integrum, columnam involvens. *Columna* marginata, clavata, stigmate infundibulari, clinandrio postice tridentato. *Pollinia* 8, subæqualia, quibusdam aliis parvis interjectis. *Anthera* 4-locularis, septis marginatis, loculis semipartitis.—Herbæ *caulescentes, epiphytæ, apice* folium *unicum vel alterum, semicylindraceum, carnosum, supra sulcatum, apice subulatum gerentes.* Flores *terminales, magni, speciosi. Lindl.*

Specific Character and Synonyms.

BRASSAVOLA *nodosa;* labello cordato-acuminato basi angusto involuto, sepalis petalisque labelli longitudine linearibus acuminatis, columnæ dentibus lateralibus integris intermedio bi- tridentato.

BRASSAVOLA nodosa. *Lindl. Gen. et Sp. Orchid. p.* 114.

EPIDENDRUM nodosum. *Linn. Sp. Pl. p.* 1350. *Jacq. Amer. p.* 226. *t.* 140.

CYMBIDIUM nodosum. *Sw. Nov. Act. Ups. v.* 6. *p.* 73. *Spreng. Syst. Veget. v.* 3. *p.* 722.

VISCUM delphinii flore minus, &c. *Sloane, Jam. v.* 1. *p.* 251. *t.* 121. *f.* 3.

DESCR. From a short, horizontal *rootstock,* which throws out a few simple *fibres,* there arise three or four or more *stems,* five or six inches high, terete, jointed and clothed

with striated, membranous, whitish-green sheaths, spotted with brown, each terminated by a single, thick, fleshy, rigid, subulate *leaf*, semiterete at the back, furrowed in front, of a very dark green colour. At the base of this leaf, and from a sheathing scale, appears the pedunculated *raceme*, shorter than the leaf, of about from ten to twelve moderate sized *flowers*, fragant at night. *Sepals* patent, yellowish-green, linear-acuminate, rather longer than the labellum ; *petals* smaller and narrower, but of the same colour. *Labellum* from a cylindrical, involute, greenish base, suddenly expanding into a whitish cordato-ovate, acuminated, carinated extremity, the margins often reflexed. *Column* short, concealed within the involute base of the labellum, cylindrical, white, with three lanceolate, erect teeth at the extremity, of which two are lateral or almost in front, and entire, the third dorsal, bi- trifid at the extremity. *Anther* terminal, almost concealed by the teeth, hemisphærical, with eight cells and *pollen-masses,* four smaller attached to the anterior extremity of as many caudicula, and four larger, affixed to the opposite extremity; some lesser globules are likewise attached to the sides of the caudicula.

From the stove of Charles Horsfall, Esq. Mayor of Liverpool, who received it from William Parke, Esq. of Kingston, Jamaica, in 1830, and obligingly accompanied it by the excellent drawing here engraved, from the pencil of Mrs. Horsfall. The plant had remained dormant, without showing any signs of vegetation for about six months after its arrival in this country, and then put forth one shoot, which attained its full growth in the course of two months, when the individual again became dormant for about the same period as before. In January 1832, it produced its blossoms, which the gardener, Mr. Henry Evans, observed to be fragrant at night.

This species is assuredly the same as the plant above referred to in Sloane, whose figure, indeed, is far more characteristic than that of Jacquin.

Fig. 1. Labellum. 2. Back view of a Column. 3. Front view of ditto. 4. Anther with its Pollen Masses. 5. Anther Case. 6. Pollen Mass.—*Magnified.*

3230.

Jas. McNab del. Pub. by S. Curtis, Glazenwood Essex April 1. 1833. Swan Sc.

(3230)

CORYDALIS LONGIFLORA. LONG-FLOWERED CORYDALIS.

* * *

Class and Order.

DIADELPHIA HEXANDRIA.

(Nat. Ord.—FUMARIACEÆ.)

Generic Character.

Petala 4, unicum basi calcaratum. *Siliqua* 2-valvis compressa polysperma.—Herbæ *glabræ, sæpe glaucæ.*

Specific Character and Synonyms.

CORYDALIS* *longiflora;* caule simplici squamigero, foliis biternatim sectis, segmentis subtrifidis lobis obovato-oblongis, racemo terminali laxifloro, bracteis ovato-lanceolatis pedicello brevioribus, calcare subulato pedicello longiore. *Graham.*

CORYDALIS longiflora. *Pers. Syn. Pl. v.* 2. *p.* 269. *De Cand. Syst. Veg. v.* 2. *p.* 116. *ib. Prodr. v.* 1. *p.* 127. *Spreng. Syst. Veg. v.* 3. *p.* 160. *Link et Otto, Icon. Pl. Rar. pars I. p.* 3. *t.* 2.

FUMARIA longiflora. *Willd. Syst. Pl. v.* 3. *p.* 860.

FUMARIA Schangini. *Pall. Act. Petrop.* 1779, *v.* 2. *p.* 267. *t.* 14. *f.* 1—3.

(β.) FUMARIA caudata. *Lam. Dict. v.* 2. *p.* 569. (fid. *D C.*) *Ibid. Encycl. v.* 3. *p.* 563 ? (fid. *Willd.*)

CORYDALIS caudata. *Pers. Syn. Pl. v.* 2. *p.* 269. (fid. *D C.*)

DESCR. *Tuber* globular, about the size of a hasel nut. *Stem* to the uppermost flower six to eight inches high, nearly erect, subpellucid, slightly glaucous, leafy at its base, sheathed. *Leaves* shorter than the stem, lengthening somewhat after the flowers have faded, glaucous, biternate; *leaflets* subtrifid, lobes obovato-oblong. *Raceme* terminal; rachis tapering; flowers scattered loosely; pedicels (half an inch long) gradually lengthening as the fruit forms, suberect, round, glabrous, reddish. *Bracteas* single at the base of each pedicel, rather shorter than the pedicels when in flower, ovato-lanceolate, obtuse, gradually diminishing upwards, nerved. *Flower* (an inch and three quarters long) pale rose-coloured, *petals* slightly cohering at the base, limb concave, that of the three upper petals fleshy, the upper and lower nearly equal, upper suberect, lower almost straight, wings shorter, their limb oblong, keeled, blood-red in the upper half, cohering at the apex, keel, when placed under the microscope found to be tubercled near the apex, claw long, slender, linear: spur tapering, nearly straight. *Filaments* diadelphous, three cohering within the upper and three within the lower petal, free for a very little way at the apex only. *Anthers* yellow, pollen-granules sphærical. *Stigma* green, compressed, blunt, sagittate at the base, crowning the anthers. *Germen* oblong-linear, angled, ovules numerous.

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* From κορυδαλις, a *lark,* from the long spur or claw of the flower, resembling that of a lark.

Tubers of this plant, which is a native of the Altaic Mountains, were received at the Botanic Garden, Edinburgh, from Berlin, in 1832, and flowered in the greenhouse, during the December and January following. *Graham.*

Fig. 1. Side view of a Flower, from which the Petals, 4 and 5, are removed. 2. Pistil. 3. Three of the Stamens cohering by their Filaments. —Slightly *magnified.*

3251.

W. J. H. del.

Pub. by S. Curtis, Glazenwood, Essex. April 1.1833.

wan sc.

GELONIUM FASCICULATUM. CLUSTER-FLOWERED GELONIUM.

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Class and Order.

DIŒCIA POLYANDRIA.

(Nat. Ord.—EUPHORBIACEÆ.)

Generic Character.

Flores dioici. *Calyx* 5-partitus, reflexus; præfloratio convolutiva. *Petala* o. MASC. *Stamina* 12 aut multo plura, receptaculo multiglanduloso imposita, filamentis exsertis, antheris adnatis, extrorsis, oblongis. FŒM. *Stigmata* 2—3 sessilia, lacera; *ovarium* carnosum, disco glanduloso impositum, 2—3-loculare, loculis 1-ovulatis. *Fructus* capsularis, 2—3-coccus. *Juss.*

Specific Character and Synonym.

GELONIUM * *fasciculatum;* foliis ellipticis obtusis, floribus fasciculatis fœmineis stigmatibus brevibus apice laceris.

GELONIUM fasciculatum. *Roxb. Hort. Bengh. p. 73.*

DESCR. A glabrous *shrub,* or, probably, small *tree,* with rounded, green *branches* and alternate *leaves,* which are on very short petioles, elliptical, but sometimes approaching to oblong, at other times almost ovate, obtuse, the margins entire, or in the younger leaves not unfrequently furnished with a few coarse serratures. *Stipules* very caducous, falling off as the young leaf unfolds, and apparently of the same nature as those of the fig-tribe. *Peduncles* opposite to the leaves, short and branched, so that the flowers appear to be fascicled. The *perianth* is of a greenish-white colour, consisting of five oval *leaflets,* slightly jagged at the edge. *Male flowers* with a wrinkled, fleshy disk in the centre, which bears several stamens: *Filaments* white; *Anthers* oblong, yellow. *Female Flowers,* according to Dr. Roxburgh's drawings in the East India Company's Museum, with a similar perianth, and annular disk, surrounding a rounded, three-lobed *germen,* crowned with three spreading, wedge-shaped *stigmas,* lacerated at the extremity.

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* A name given by Dr. ROXBURGH, of which the derivation is not stated.

Introduced from the East Indies to the Royal Gardens of Kew, whence specimens and a drawing were kindly communicated by Mr. Aiton. It exists probably in other collections; for Mr. Aiton observes that it bears the name of Saragoda *glabra* in some gardens:—and by that generic name it was probably Dr. Roxburgh's intention once to distinguish it; for he observes in the Flora Indica, where two other specimens are mentioned, (G. *bifarium* and *lanceolatum*) that the Telinga name is *Soora-gada.* It flowers in August, and requires the heat of a stove. I have only seen specimens of the male plant. The pistil I have copied from Dr. Roxburgh's figure in the India House.

Fig. 1. Flower-bud. 2. Portion of the glandular body of the Male Flower, bearing Stamens. 3 and 4. Anthers. 5. Pistil from a Female Flower (copied from Dr. Roxburgh's drawing):—more or less *magnified.*

3232.

C. W. Short M.D. Lexington U.S.A. del. Pub by S. Curtis Glazenwood Essex April 1 1833. Swan Sc.

HYDRASTIS CANADENSIS. AMERICAN HYDRASTIS.

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Class and Order.

POLYANDRIA POLYGYNIA.

(Nat. Ord.—RANUNCULACEÆ.)

Generic Character.

Cal. 3-sepalus, sepalis ovatis ; *Pet.* 0. *Stamina ovariaque* plurima. *Cariopsides* baccatæ, plurimæ in capitulum, stylo terminatæ, 1-loculares, 1—2-spermæ. *Semina* obovoidea lævigata. *D. C.*

For *Specific Name* and *Synonyms* and *Description* and Figure of the Flowering Plant see our Tab. 3019.

Under the remarks at the Figure just quoted, I mentioned the great rarity of this plant, and that, notwithstanding the extensive correspondence I enjoyed with the Botanists of North America, it had never been in my power to examine a native specimen. Through the kindness of Dr. DARLINGTON of West Chester, Pennsylvania,I have lately been placed in communication with Dr. SHORT of Lexington, Kentucky, and amongst a very extensive collection which that gentleman had the kindness to send me, (unquestionably one of the most beautiful I ever received,) I had the great pleasure to find specimens of HYDRASTIS *Canadensis,* and what was still more valuable, a beautiful drawing of the fructified state, as it is here given, taken from the living plant.

If in the flowering state, HYDRASTIS *Canadensis,* has little beauty to recommend it to general cultivation, such is not the case when it has arrived at maturity ; at which period, the two ample leaves terminating the erect and unbranched stem, are crowned, as it were, with the rich scarlet berry as large as a raspberry. It is composed of about a dozen

obovate, fleshy, and very juicy pericarps, each tipped with its persistent, recurved style, and containing shining, black, smooth seeds. The natural affinities of this plant may well give rise to suspicion that the fruit is better to the eye than the palate, and it might be dangerous to make experiments on its esculent properties. About Lexington, the HYDRASTIS *Canadensis* appears to be not unfrequent, producing its inconspicuous blossoms before the leaves are fully developed early in April, and its scarlet fruit the beginning of July.

Fig. 1. Fruit. 2. Under-side of ditto, *nat. size.* 3. A single Carpel. 4, 5. Seeds: *magnified.*

5233.

W. J. H. del.

Pub. by S. Curtis. Glazenwood. Essex. April 1. 1861.

Swan Sc.

EPIDENDRUM PYGMÆUM. DWARF EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patentia, subæqualia. *Petala* sepalis æqualia v. angustiora, rarius latiora, patentia vel reflexa. *Labellum* cum marginibus columnæ omnino v. parte connatum, limbo integro vel diviso, disco sæpius calloso, costato v. tuberculato; nunc in calcar productum ovario accretum et cuniculum formans. *Columna* elongata: clinandrio marginato sæpe fimbriato. *Anthera* carnosa, 2—4-locularis. *Pollinia* 4, caudiculis totidem replicatis annexa.—Herbæ *(Americanæ) epiphytæ, caule nunc apice v. basi pseudo-bulboso, nunc elongato apice folioso.* Folia *carnosa, rarissime venis elevatis striata.* Flores *spicati, racemosi, corymbosi v. paniculati, terminales v. laterales. Lindl.*

Specific Character and Synonyms.

EPIDENDRUM *pygmæum;* caule repente radicante, bulbis oblongis diphyllis apice floriferis, floribus subsessilibus, sepalis ovatis acuminatis, petalis lineari-lanceolatis, labello columnæ arcto adnato trilobo, lobis lateralibus rotundatis incurvis intermedio integro acuto.

EPIDENDRUM pygmæum. *Hook. in Bot. Misc. N. Ser. p.* 49. *t.* 118. *ined.*

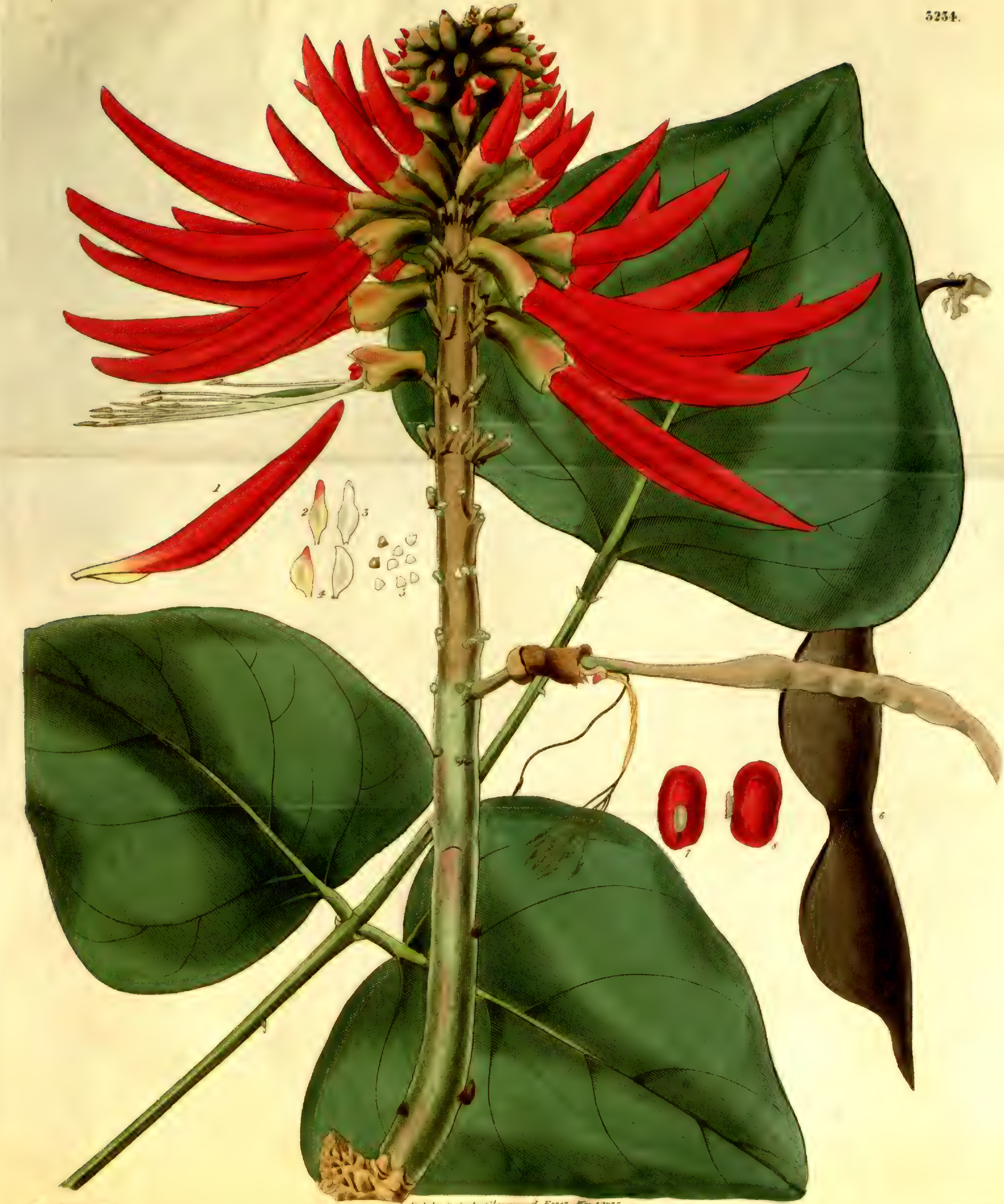
DESCR. *Stem* about the thickness of a crow's quill, elongated, wavy, creeping, clothed in part with dark brown, sheathing scales; throwing out from beneath rather long, branching *roots,* and from above, oblongo-lanceolate, compressed,

pressed *bulbs,* each of the latter terminated by two oblongo-lanceolate, obtuse, coriaceous, spreading, dark green *leaves,* paler beneath. *Flower* small, solitary, from the axil of the two leaves, upon a very short *peduncle,* which is surrounded by a dark brown, sheathing *bractea,* and several lesser and pale green ones, some of which appear to be abortive flowers. Three outer segments of the *perianth* or *sepals* are ovato-acuminate, greenish, the two inner, or *petals* linear-lanceolate, of the same colour as the outer ones. *Labellum* white, adnate with the white, rather short, cylindrical *column,* three-lobed; two lateral lobes large, incurved, rounded, the intermediate one acute, straight, tipped with red. *Column* with a tooth in front of the anther. *Anther* orange-coloured. *Pollen-masses* deep yellow. *Germen* clavate, acutely triquetrous. *Capsule* oval in its outline, sharply triquetrous, tipped with the withered floral coverings.

In 1832, I had first the pleasure of receiving this plant from Mrs. ARNOLD HARRISON of Aigburgh, to whom it was sent by her brother from Brazil. In January 1833, specimens, both in flower and in fruit, were obligingly communicated to me by CHARLES HORSFALL, Esq. of Liverpool, who received the plant from WILLIAM PARKE, Esq. Kingston, Jamaica. It has the habit of DINEMA, *Lindl.,* but possesses in its flowers the true structure of an EPIDENDRUM.

Fig. 1. Flower and Bractea. 2. Front view of a Flower. 3. Two of the Sepals, Column, and Labellum. 4. Capsule: *magnified.*

3234.



Revd W. T. Lowe delt

Pub. by S. Curtis, Glazenwood Essex, May 1 1833.

ERYTHRINA POIANTHES. NAKED-FLOWERING CORAL-TREE.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Cal. tubulosus ore truncato subdentato aut spathaceus. *Cor. vexillum* longissimum oblongum, alæ et carina dipetala vexillo multo breviores. *Stamina* diadelpha recta, decimo nunc cæteris subcoalito, nunc libero alis multo breviore aut rarius deficiente. *Legumen* longum torulosum bivalve polyspermum. *Semina* ovata, hilo laterali.—Arbusculæ *aut* frutices, *rarius* herbæ. Stipulæ *parvæ a petiolo distinctæ.* Folia *petiolata* 1-*juga cum impari, foliolis loco stipellarum glandulis basi stipatis.* Caules *et petioli interdum aculeati.* Racemi *elongati, pedicellis sæpe ternatim approximatis.* Flores *rubro-coccinei.* Semina *sepius rubro et nigro mixta, nitida. D C.*

Specific Character and Synonyms.

ERYTHRINA *poianthes;* caule arboreo, ramis petiolisque sparsim aculeolatis, foliis inermibus ovato-deltoideis obtusis basi subcordatis, junioribus utrinque petiolis ramulis racemisque ferrugineo-pubescentibus subtomentosis, calycibus tubuloso-campanulatis subcarnosis pubescentibus, ore constricto truncato dentibus obsoletis, vexillo lineari-lanceolato elongato subfalcato, staminibus subdiadelphis inclusis vexillo paullum breviore, carina alisque parvis inclusis calycem æquantibus.

ERYTHRINA poianthes. *Brotero in Linn. Trans. v.* 14. *p.* 342. *t.* 10, 11. *Lindl. in Bot. Reg. t.* 1246. *De Cand. Prodr. v.* 2. *p.* 411. *Spreng. Syst. Veget. v.* 3. *p.* 243.

DESCR. A low *tree,* fifteen to twenty feet high, with the *trunk* and *branches* thick in proportion, the former being sometimes four feet in circumference. *Branches* at first erect and straight, but soon becoming curved and even bent downwards from their own weight and the peculiar softness of the wood, which is so light and pithy when dried, as to resemble cork, and splits very readily. *Trunk* and *branches* covered with an even, greenish, ash-coloured *bark,* the smaller ones almost white, with small, solitary, scattered, hooked *prickles:* the main stem oblique, or even horizontal in old trees, bearing many, subdivided, erect branches, each tipped, from April to June, with a spike of brilliant scarlet *flowers,*

which are unaccompanied, for most of the time, with a single leaf, and thus present a most singular and beautiful appearance. Till the period of inflorescence is half over, the tree is quite naked, and does not produce its full foliage till July, a few racemes only continuing through great part of the summer. *Leaves* copious, large, and handsome, borne in terminal tufts and springing from buds which are densely clothed with tomentose, small scales. *Stipules* ovate, minute and downy, fleshy, at length indurated, woody and permanent. *Prickles* from a small point or protuberance between the stipules, close beneath the large, prominent scar of the petiole, and requiring at least two years for their development. *Petioles* round, even, with rarely more than two small, hooked prickles beneath, covered, when young, with tawny pubescence. *Lateral leaflets* on short, thickened stalks, each furnished with a minute stipule, inæquilateral, ovato-deltoid, somewhat heart-shaped, obtuse, *terminal one* with a longer petiole, and two small stipules of the same figure, but equilateral and larger than the lateral leaflets; all pubescent beneath when young: the entire leaf measuring nearly a foot in length. *Raceme* nearly straight and erect, solitary or two or even three springing from the summit of each branch, and at the base of the terminal, unexpanded leaf-bud, consisting of numerous, closely-crowded flowers, in a dense cone of spirally arranged buds; its main stem fulvo-pubescent, rounded, finally nearly a foot long. *Flowers* of a most brilliant vermillion scarlet, irregularly whorled. *Pedicels* very short, each bearing a small, ovate bractea at the base, and a pair of similar ones beneath the calyx. *Calyx* compressed, brownish below, reddish above, downy, rigid, fleshy, subcampanulate, truncated, the *mouth* contracted, entire, teeth obsolete or with the intervals filled up by a continuing membrane. *Vexillum* forming the whole flower, strongly folded together for its whole length, linear-lanceolate, narrow, obtuse, slightly curved upwards, faintly streaked with longitudinal darker lines. *Wings* very small, their tips just appearing beyond the calyx, oblong, concave, rounded, pale reddish at the ends, pale green below, striated. *Petals* of the keel rather shorter and narrower than the wings, but nearly of the same form and hue, closely embracing the base of the stamens, which last are imperfectly diadelphous, a little shorter than the vexillum, and generally sheathed by it. *Filaments* white; *anthers* small, linear; *pollen* triquetrous. *Style* subulate; *stigma* acute. *Pod* four to nine inches long, compressed, beaked, smooth, dark brown, irregularly moniliform, containing a pithy substance, and two to four *seeds*, which are oval, of a dull scarlet, with a small, black lozenge-shaped mark just below the *hilum*.

Not an unfrequent inmate of the gardens in Madeira, to which it was probably brought immediately from Portugal where it is much cultivated, the native country of this splendid tree being Asia. Besides its singularity and beauty, the facility with which the various species of ERYTHRINA are propagated is no small recommendation. Every branch, however rudely broken and carelessly stuck in the ground, will readily take root and grow. The flowers are perfectly scentless, like those of the other Coral-Trees; they spread horizontally as they continue to expand, the lower ones opening first and falling off in succession as the upper ones advance: thus the racemes preserve throughout the appearance of a candelabrum. In Madeira, few pods are produced, the blossoms almost all dropping off with the calyx entire, and leaving the pedicels attached to the main stem for some little time longer. These, however, fall also, before the uppermost flowers of the raceme have opened.

The individual plant from which the drawing and description were taken, grows in the garden of the Quinta da Valle, close to its rival in beauty, ERYTHRINA *velutina*. *Rev. R. T. Lowe.*

Fig. 1. Corolla. 2, 3. Wings. 4. The two Petals of the Keel, *nat. size*. 5. Pollen, *magnified*. 6. Pod. 7, 8. Seeds, *nat. size*.

3235.

W. J. H. del.

Pub. by S. Curtis Glazenwood, Essex May 1 1833

Swan Sc.

SANTALUM ALBUM. SANDAL WOOD.

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Class and Order.

TETRANDRIA MONOGYNIA.

(Nat. Ord.—SANTALACEÆ.)

Generic Character.

Perianthium 4-fidum, tubo ventricoso, deciduum. *Glandulæ* 4, fauci insertæ, staminibus alternantes. *Stigma* 3—4-lobum. *Drupa* baccata, apice marginata.—Arbores *v.* frutices *glabri.* Folia *opposita, plana, latiuscula.* Flores *terni in pedunculis opposite ramosis: bracteis caducis. Br.*

Specific Character and Synonyms.

SANTALUM * *album;* foliis ovato-lanceolatis venosis, racemis paniculatis.
SANTALUM album. *Linn. Sp. Pl. p.* 497. *Roxb. Fl. Indic. v.* 1. *p.* 462.
SANDALUM album. *Rumph. Amboyn. v.* 2. *p.* 42. *t.* 11.

DESCR. *Trunk* twenty to thirty feet high, branched low down, two and a half to three feet in circumference. *Bark* brownish, scabrous, longitudinally cleft. *Branches* numerous, much divided, spreading, and rising in every direction, forming nearly a sphærical head: the young shoots round and smooth. *Leaves* opposite, petioled, oblong, smooth, entire, glaucous below, from one and a half to three inches long. *Petioles* smooth. *Thyrsi of flowers* axillary and terminal. *Pedicels* opposite, the lower pair of each thyrsus generally three-flowered. *Flowers* numerous, small, at first straw-coloured, changing to a deep, ferruginous purple, scentless, as are all the external parts of the growing plant, even this has been done, is commonly called *root Sandal,* and is of superior quality. In smoothing the billets, chips of the Sandal are of course cut off; so are also fragments in squaring their ends. These chips and fragments, with the smaller assortment of billets, answer best for the Arabian market; and from them the essential oil is distilled. The larger billets are sent to China; and the middle-sized ones are used in India. The Sandal, when thus prepared and sorted, for at least three or four months before it is sold, ought to be shut up from the sun and wind in close warehouses; but the longer it is kept, with such precautions, the better; its weight diminishing more than its smell. Prepared in this way, it rarely either splits or warps; both of which accidents render it unfit for many of the purposes to which it is applied.

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* From the Arabic *Ssandal;* or from the Persian *Sundul-sufed.*

Before the year 1797, Sandal-wood was sorted into three sizes. Of the first size, thirty-five pieces made a *Candy* of 560 ℔s.: of the second size, forty-five pieces, and of the third size, fifty-five pieces. Since the year 1797, the sizes have been reduced. The first sort now contains sixty-five, the second sort seventy-two, and the third sort ninety pieces. All pieces smaller than these, all rank and knotty pieces, whatever may be their size, together with cuttings, roots, and the like, are called *Carippu,* and form a fourth sort. The chips which are removed in polishing the logs form a fifth assortment. The first three sorts only are exported to China, the *Carippu* to Bengal and Muscat, but to the former in the greatest quantity. The chips are sent to Bombay, Cutch, and Muscat.

The Sandal-wood of the Sandwich Islands, of which I possess specimens gathered by Mr. MENZIES, and by Mr. MACRAE, is a very different species, and is SANTALUM *Freycinetianum* of GAUDICHAND, and is almost the only article of commerce that those islands produce; by means of it, a very lucrative trade has been carried on with China. Five new species of this Genus are also given by Mr. BROWN as natives of New Holland, mostly of the tropical parts.

The wood of a species of PTEROCARPUS, the P. *santalinus,* is also known in commerce by the name of *Red Sandal-wood,* having been sent to LINNÆUS, says Sir J. E. SMITH, from the East Indies as a kind of SANTALUM *rubrum,* or red *Sanders-wood,* and ascertained to be such by KÖNIG: it is described as a hard and heavy wood, of a deep red colour, with black veins, and as taking a fine polish. *Santaline* of M. PELLETIER, is the colouring principle extracted from this wood.

3236.

T del.t

Pub by S. Curtis Glazenwood Essex May 1 1833.

Swan Sc.

DRYANDRA ARMATA. SHARP-POINTED DRYANDRA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—PROTEACEÆ.)

Generic Character.

Perianthium quadripartitum vel quadrifidum. *Stamina* apicibus concavis laciniarum immersa. *Squamulæ* hypogynæ 4. *Ovarium* uniloculare, biovulatum: *Ovula* post fœcundationem cohærentia. *Folliculus* lignosus. *Dissepimentum* ligneum, semibifidum fructus maturi omnino simile. *Receptaculum* commune planum, floribus indeterminatim confertis; paleis angustis, raro nullis. *Involucrum* commune imbricatum.—Frutices *plerumque humiles.* Rami *dum adsint sparsi vel umbellati.* Folia *sparsa, pinnatifida vel incisa, plantæ juvenilis conformia.* Involucra *solitaria, terminalia, raro lateralia, sessilia, foliis confertis, interioribus quandoque nervis obvallata, hemisphærica, bracteis adpressis, in quibusdam apice appendiculatis.* Stylus *sæpe perianthio vix longior. Br.*

Specific Character and Synonyms.

DRYANDRA *armata;* foliis pinnatifidis lobis triangularibus planis divaricatis rectis spinoso-mucronatis terminali proximis longiore subtus reticulatis venulis nudis, ramis perianthiique laciniis glabris, stylo basi pubescenti, stigmate subulato sulcato. *Br. in Linn. Trans. v.* 10. *p.* 213. *Ejusd. Prodr. v.* 1. *p.* 297. *Spreng. Syst. Veget. v.* 1. *p.* 486.

DESCR. A much branching *shrub; branches* flexuose, glabrous, clothed with a brown bark. *Leaves* alternate;

often fasciculated, on short branches, patent or reflexed, very rigid, lanceolate, glabrous, below only furnished with several rather long, rigid, dark-coloured hairs, deeply pinnatifid, the segments patent, triangular, acute and mucronate, dark green above, paler beneath, marked with numerous reticulated, slightly elevated *veins*, which are glabrous, while the small areolæ are white as if mealy. *Involucre* terminal, solitary, of numerous imbricated, linear scales, clothed with short, dark brown hairs, surrounded by a sort of ray of numerous leaves. *Flowers* numerous, long, slender, yellow, deeply divided into four very narrow, linear laciniæ, slightly enlarged upwards, in which portion the linear *anthers* are, as it were imbedded. *Pollen* copious, and as well as the *anthers*, yellow.

In the inestimable *Prodromus Fl. Novæ Hollandiæ* of Mr. Brown, thirteen species of Dryandra are enumerated, and in the Supplement to the same work, twelve new species are added; all of them, as Mr. Brown observes, natives of the South-western shores. "It is worthy of remark," says that gentleman, "that while Banksia is generally spread over all the coasts of New Holland and of Van Diemen's Island, Dryandra has hitherto been observed only on that part of the South coast called Lewin's Land, where, however, its species are nearly as numerous and abundant as those of Banksia itself." D. *armata* was discovered by that gentleman in the country just mentioned, and from seeds sent from thence by the late Mr. Fraser, plants have been raised in the Glasgow Botanic Garden, which flowered in February, 1833.

Fig. 1. Segment of a Leaf, seen from beneath.—*Magnified.*

3237.

W.J.H. delt

Pub by S. Curtis Glazenwood Essex May 1 1833.

Swan Sc.

HETEROPTERIS CHRYSOPHYLLA. GOLDEN-LEAVED CHRYSOPHYLLA.

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Class and Order.

DECANDRIA TRIGYNIA.

(Nat. Ord.—MALPIGHIACEÆ.)

Generic Character.

Cal. 5-partitus, extus ad basin 8—10-glandulosus. *Petala* unguiculata, subrotunda. *Stam.* 10 filamentis subulatis basi cohærentibus. *Styli* 3 sursum non dilatati. *Carpella* indehiscentia 3, monosperma, subdistincta, demum separabilia, desinentia in alam simplicem membranaceam deorsum (nec superne) incrassatam. *Semen* 1, pendulum in quoque loculo. *Cotyledones* crassæ inæquales. *Radicula* supera ad hilum versa.—Arbores, fruticesve *sæpe scandentes. D C.*

Specific Character and Synonyms.

HETEROPTERIS* *chrysophylla;* foliis ovato-oblongis acutiusculis versus apicem subsinuatis subtus tomentoso-nitidis aureis, petiolis brevissimis apice biglandulosis, floribus axillaribus paniculatis.

HETEROPTERIS chrysophylla. *Humb. et Kunth, Nov. Gen. et Sp. v.* 5. *p.* 163. *De Cand. Prodr. v.* 1. *p.* 391.

BANISTERIA chrysophylla. *Lam. Dict. v.* 1. *p.* 368. *Cav. Diss. t.* 24. *Jacq. Hort. Schænbr. t.* 105.

DESCR. A twining *shrub,* attaining to a great length, with opposite, rounded branches, clothed with dense appressed, rusty, and shining hairs, the younger ones compressed.

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* Ἑτερος, *various,* and πτερος, *a wing,* from the variable shape of the wing of the fruit.

pressed. *Leaves* opposite, on short, rounded petioles, oval, or oval-oblong, entire, somewhat acute and waved, coriaceous, dark green and glabrous above, marked beneath, with several glands near the margin, and clothed with a beautiful golden-brown, satiny pubescence, as are the *petioles,* which have moreover two lateral, green, convex glands near the extremity. *Peduncles* axillary, bearing an umbellated *panicle,* much shorter than the leaves. *Calyx* five-partite, clothed with rusty pubescence, and bearing eight large, oblong, bright-green, shining, prominent glands. *Corolla* of five *petals,* which are roundish-oval, minutely crenulate, unguiculate, orange-coloured, becoming deeper and almost red in age. *Stamens* ten, erect: *filaments* subulate; five alternately smaller; *anthers* roundish, reflexed, black at the back, pale and almost white in front. *Germen* ovate, clothed with dense, rusty hairs. *Styles* three, short, terete, green.

For the opportunity of figuring this desirable inmate of the stove, with the rich and golden clothing to the underside of its leaves, I am indebted to J. T. MACKAY, Esq. who sent it from the Dublin College Botanic Garden, in the early part of March, 1833. It is a native of Brazil and the Caraccas, and I have received splendid specimens from the late Rev. L. GUILDING of St. Vincent's. In the older state of the plant, I find the glands to be obsolete, and thus, except in the larger terminal and leafy panicles, I do not see how Mr. LINDLEY'S H. *nitida,* β, differs as a species.

Fig. 1. Flower. 2. Petal. 3. Anther. 4. Pistil:—*magnified.*

3238.

W.J.H. del.^t

Pub by S. Curtis Glazenwood Essex May 1 1833

Swan Sc.

POGOSTEMON PLECTRANTHOIDES. PLECTRANTHUS-LIKE POGOSTEMON.

****

Class and Order.

DIDYNAMIA GYMNOSPERMIA.

(Nat. Ord.—LABIATÆ. Div. MENTHOIDEÆ. *Benth.*)

Generic Character.

Cal. æqualis, 5-dentatus. *Cor.* 4-fida, subbilabiata, labio superiore trifido patente, inferiori integerrimo acuto subdeflexo. *Stam.* 4, exserta, distantia, subdeclinata. *Filamenta* barbata. *Antheræ* terminales, 1-loculares, rima transversali dehiscentes. *Benth.*

Specific Character and Synonyms.

POGOSTEMON* *plectranthoides ;* suffruticosum, foliis ovatis petiolatis inæqualiter dentatis pubescentibus, spicis secundis obtusis. *Desf.*

POGOSTEMON plectranthoides. *Desf. in Mém. du Mus. v.* 2. *p.* 155. *p.* 6. *Wall. Cat. Herb. Ind. No.* 1530.

DESCR. *Stem* woody, erect, obscurely four-sided, more distinctly so in the branches, very slightly swollen at the joints ; *bark* pale brown, striated, tomentoso-pubescent on the young shoots. *Leaves* five inches long, two and a half broad, opposite, petioled, spreading, ovate, acuminate, coarsely and unequally serrated, entire and subcuneate at the base, pubescent on both sides, veined, the middle rib and primary veins (which pass obliquely forward) prominent behind, petiole about a fourth part of the length of the leaf, channelled above, pubescent. *Flowers* in terminal,

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* From πωγων, *a beard,* and ϛημων, *a stamen,* in consequence of the bearded stamens.

nal, bracteate panicles; *rachis* and its branches tomentoso-pubescent, sprinkled with purple spots, which are also seen on the back of the uppermost leaves and the lower side of their petioles; *bractea* ovate, acute, strongly ciliated, pubescent on both sides spotted with purple. *Calyx* green, scarcely spotted, clavate, shorter than the bractea, five-cleft, pubescent, segments acute, subequal, the lowest rather the longest. *Corolla* white, *tube* slightly compressed, laterally declined; *limb* scarcely so long as the tube, bilabiate, *upper lip* erect, trifid, *segments* blunt, pubescent on the outside, slightly reflexed at their apices, the central the smallest; *lower lip* simple, lanceolate, acute, glabrous, deflected. *Stamens* exserted, distant, deflected: *filaments* twice as long as the corolla, lilac, and covered on their outsides at the middle with long lilac, moniliform hairs; *anthers* pale yellow, unilocular, and bursting by a slit a little to one side of their vertex, forming two rather unequal valves. *Style* lilac, glabrous, bifid. *Stigmas* minute, terminal. *Germen* four-lobed, placed on a cylindrical disk.

The seeds of this plant were received at the Royal Botanic Garden, Edinburgh, from Mauritius in 1830; it blossomed in the stove for the first time in January and February, 1833, the blossoms coming in succession for a long time. Whatever it has of beauty, is derived from its long, lilac, bearded stamens.

I have referred above to the Kamoun specimen in WALLICH's Herbarium, with which our plant is identical, because more careful examination may induce Mr. BENTHAM to consider the specimens from other stations distinct. It is possible that it may have been introduced to Mauritius from India. *Graham.*

I have been favoured with a drawing and specimens of this plant also from the Royal Gardens of Kew, where it was introduced in 1830, by seeds sent from Dr. WALLICH, and where it blossomed in December of the same year.

Fig. 1. Flower and Bracteas. 2. Flower scarcely expanded. 3. 3. Anthers. 4. Part of a Hair from a Filament: *magnified.*

3239.

J H delt. Pub by S Curtis Glazenwood Essex May 1 1833. Swan Sc

AZALEA LEDIFOLIA, *var.* β, phænicea. PURPLE-FLOWERED FRAGRANT INDIAN AZALEA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—RHODODENDREÆ.)

Generic Character.

Cal. 5-dentatus. *Cor.* infundibuliformis limbo 5-fido. *Stam.* receptaculo inserta. *Caps.* 3—5-locularis, valvis dissepimentum formantibus. *Sem.* nuda.

Specific Character and Synonym.

AZALEA *ledifolia;* floribus ternis, calyce erecto glanduloso-viscido, staminibus sursum curvatis.
AZALEA ledifolia. *Bot. Mag. t.* 2901. (White-flowered.)
AZALEA Indica, *var.* aliorum.
Var. β. *phænicea,* semiduplex, floribus phæniceis, corollæ segmentis tribus superioribus maculatis (TAB. 3239.)

The richly-coloured flowers of this plant make a brilliant appearance in the greenhouse during the months of January and February, and form a striking contrast with the more frequent white-blossomed state; but the present is by no means so ready a flowerer. That it belongs to the same species (and not to the A. *Indica*) there can, I think, be no question ; it possesses all the essential characters, and the fragrance is similar, or perhaps more powerful, and evident to persons who are insensible to that of the white kind.

I have already, under t. 2901, suggested that the double rose-coloured *var.* of AZALEA *Indica,* t. 2509, should be referred to this species : another *var.* is that given at. t. 2667 of the present work.

3240.

W.J.H. delᵗ

Pub by S. Curtis Glazenwood Essex May 1 1833.

Swan Sc.

(3240)

BLECHNUM LANCEOLA. LANCE-SHAPED BLECHNUM.

****

Class and Order.

CRYPTOGAMIA FILICES.

(Nat. Ord.—FILICES.)

Generic Character.

Sori lineares continui gemini utrinque ad costam. *Involucra* membranacea plana versus costam dehiscentia.

Specific Character and Synonyms.

BLECHNUM* *Lanceola;* frondibus cæspitosis lanceolatis acuminatis integris, sterili latiore.
BLECHNUM Lanceola. *Swartz,* (according to Sprengel). *Spreng. Syst. Veget. v. 4. p.* 92.
BLECHNUM lanceolatum. *Raddi Syn. Fil. Bras. n.* 118. *Ejusd. Fil. Bras. p.* 52. *t.* 60. *f.* 3.

DESCR. *Root* densely fibrous. *Stipites* several from the same root, tufted, two to three inches long, smooth, or rough with a few minute, deciduous scales. *Fronds* four to five inches long, membranaceous, lanceolate, acuminated simple and quite entire, glabrous, dark-green above, paler beneath, costate with many parallel, simple, oblique nerves, which reach from the costa to the margin. The *sterile fronds,* when present, are seen to be shorter and broader than the *fertile ones. Sori* linear, continuous, one on each side the costa, and contiguous to it. *Involucrum* continuous also. *Capsules* numerous, dark-brown.

From the stove of the Glasgow Botanic Garden, where it bears its fructifications abundantly. It is increased by parting the roots and planting them in moist earth placed between two pieces of broken garden pot, a practice, we believe now very general in the cultivation of Ferns, and a very rational one, since such fragments retain the moisture longer than the soil itself, and thus imitate, as it were, the crevices of rocks, where this beautiful tribe of plants so much delights to grow.

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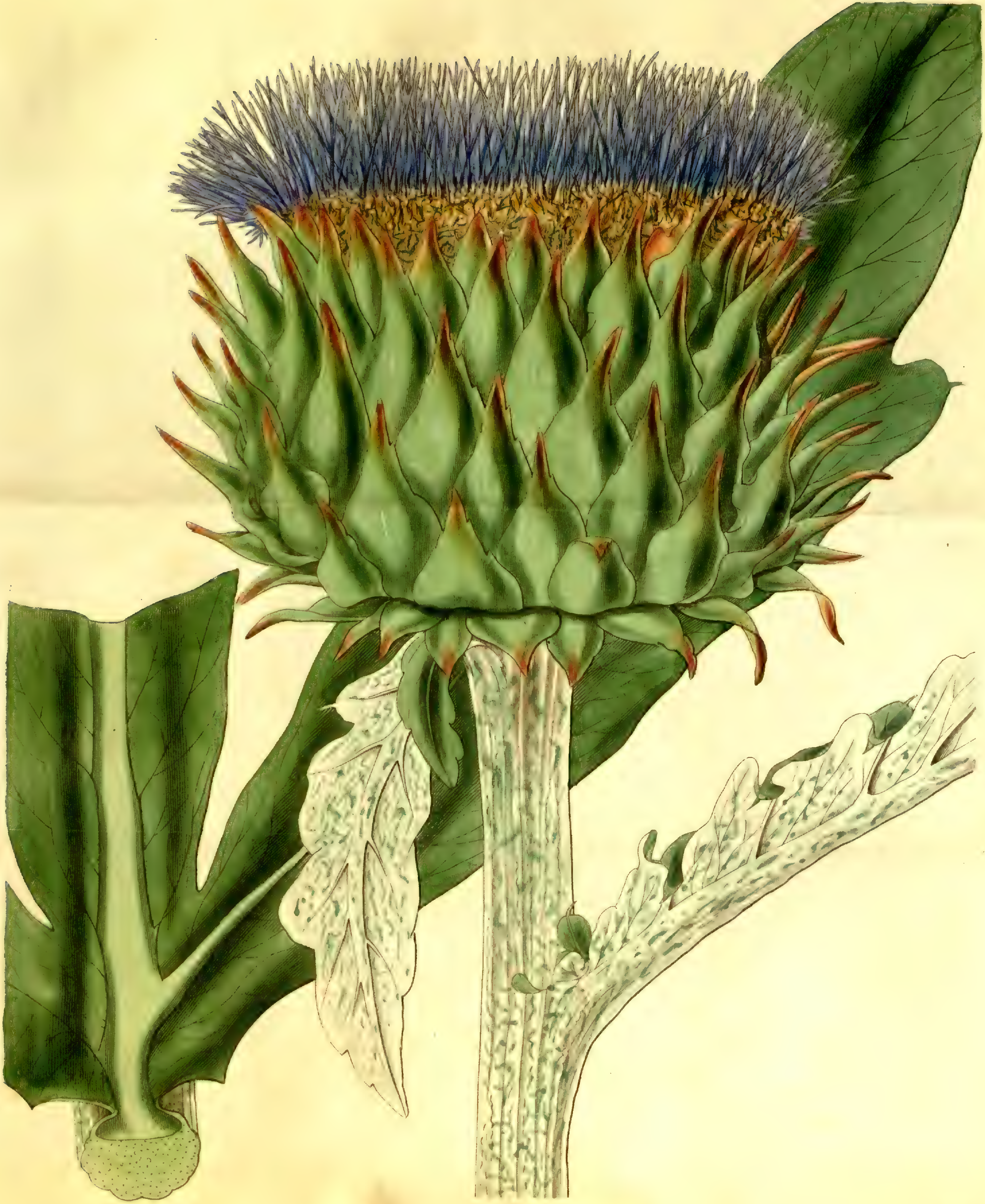
* βλεχνον, or βλαχνον, in Greek, from βλαξ, *powerless, insipid.*

B. *Lanceola* is a native of Brazil, where it appears to be not uncommon. It is named B. *lanceolatum* by Raddi, but Sprengel gives it as the B. *Lanceola* of Swartz, though I know not in which of that author's writings it is so called. It is not in his *Synopsis Filicum*, and Willdenow has no species of Blechnum with a simple and undivided frond.

Fig. 1. Portion of a fertile Frond.—*Magnified.*



W. J. H. del.

Pub. by S. Curtis. Glazenwood. Essex. June 1. 1838.

Swan sc.

CYNARA CARDUNCULUS, *var.* COMMON CARDOON.

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Class and Order.

SYNGENESIA POLYGAMIA ÆQUALIS.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Squamæ involucri basi carnosæ, spinosæ. *Receptaculum* carnosum paleis fissis munitum. *Pappus* sessilis, plumosus. *Spreng.*

Specific Character and Synonyms.

CYNARA *Carduncuius;* foliis decurrentibus pinnatifidis albo-tomentosis, magis minusve spinulosis, squamis involucri ovato-oblongis.

CYNARA Carduncuius. *Linn. Sp. Pl. p.* 1159. *Willd. Sp. Pl. v.* 3. *p.* 1691. *Desfont. Fl. Atl. v.* 2. *p.* 248. *De Cand. Fl. Fr. v.* 4. *p.* 108. *Ait. Hort. Kew. ed.* 2. *v.* 4. *p.* 487. *Pers. Syn. Pl. v.* 2. *p.* 384. *Spreng. Syst. Veget. v.* 3. *p.* 368.

CYNARA *sylvestris.* (Artichaut sauvage.) *Lam. Dict. v.* 1. *p.* 277.

COMMON CARDOON. *Mathews in Trans. of Hort. Soc. v.* 7. *p.* 11.

(β.) foliis angustis fere inermibus, involucro superne contracto squamis obtuse spinosis. *Bot. Mag. t.* 2862.

After what has been said of the *var.* β of this plant, figured at t. 2862, it is needless to enter into a description of the present individual, which I take to be what Mr. MATHEWS, in his Memoir on the Cardoons above quoted, considers as the " common Cardoon" of our gardens, the " Cardon pleine inerme" of the French, " growing from

four to five feet high: the leaves large and strong, with broadish segments to the leaflets, of a shining green, with a little appearance of hoariness on the upper surface, and generally destitute of spines, though some of the plants have a few small ones at the base of the leaflets." Our plant, which was drawn from a specimen cultivated in the garden of the Edinburgh Horticultural Society, had only very small and soft spines in the tips of the lobes of the leaflets.

The descriptive pages of the variety above figured having been chiefly devoted to an account of the singular appearance made by this plant in the Pampas of Buenos Ayres, the present will be occupied by an account of the mode of its cultivation, as is practised at the garden of the Horticultural Society of London.

The soil to be chosen for the growth of Cardoons, should be deep and light, but not over rich. The seeds are to be sown about the middle of April, in trenches about six inches deep, by twelve inches wide, into which a small quantity of rotten dung has been previously dug. The rows are to be set four feet distant from each other, and the seed sown in patches (three or four together) at about eighteen inches apart; when the young plants have acquired a few leaves, they should be thinned out to single plants. During the summer, they must be kept free from weeds, and in dry weather frequently watered. They require much moisture. About the end of October, when the plants have attained nearly their full size, a dry day is to be chosen, when the plants are free from damp, to commence the operation of blanching, which is thus performed. The leaves of each plant are carefully and lightly tied together with strong matting, keeping the whole upright, and the ribs of the leaves together. The plant is then bound closely round with twisted hay-bands about an inch and a half in diameter, beginning at the root, and continuing to about two-thirds of its height, covering the whole so as to prevent the earth, when applied to it, coming in contact with the ribs of the leaves. If the Cardoons are to be used early, and before frost sets in, the plants may remain thus banded, without earthing up, and will become sufficiently blanched for use. But if there is any danger of their being exposed to frost, then it is necessary that they should be earthed up in the same manner as Celery; care being taken not to raise the earth higher than the hay-bands.

A more common practice is, instead of using hay-bands, simply to tie the leaves together with matting, and then to earth up the plants, like Celery ; the first earthing to be in the beginning of October, and then repeated once a fortnight, until the plants are sufficiently covered. Upon comparison of the Cardoons so treated in the Horticultural Garden, with those blanched by hay-bands, the latter have been ascertained to be superior, both in colour, and in the greater length of the parts blanched.

A French method of blanching has also been tried at the Society's garden ; it was done in the following manner :—The bottom of the plant was first moulded up a little, the leaves were then tied together with pack-thread, and the whole nearly to the top was enveloped with a quantity of long, clean straw, placed in the direction of its length, and then tied round with strong matting or small ropes : the leaves were thus blanched without being earthed up, and speedily became eatable. The process is good, and affords a neat appearance ; but it is more troublesome than that first mentioned, and much more expensive; because if frost is to be excluded from the plant, a very large quantity of straw must be consumed for that purpose.

In either of the cases of the use of hay-bands or straw, it is very necessary, to be careful that the plants are perfectly dry before they are enveloped in the covering : they will otherwise rot.

It is frequently the practice to sow the seeds of Cardoons in beds, and to transplant the young plants after they have been so raised ; but it has been found preferable to sow the seeds where it is intended the plants should remain : for they are then better enabled to stand a dry summer, and are, besides, not so liable to run to flower as when they have been removed. *Hort. Trans.*

In France, the flowers of the Cardoon are gathered and dried in the shade ; when so preserved, they are used instead of rennet to coagulate milk.

Notwithstanding that the CYNARA *Cardunculus* is a native of the North of Africa, and other countries bordering upon the Mediterranean, it bears our climate remarkably well, and independent of its usefulness for domestic purposes, it really makes a fine appearance in a large garden, or in a shrubbery.

3242.

W. J. H. delt

Pub. by S. Curtis Glazenwood, Essex June 1 1833.

Swan sc.

CORYDALIS BRACTEATA. BRACTEATED CORYDALIS.

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Class and Order.

DIADELPHIA HEXANDRIA.

(Nat. Ord.—FUMARIACEÆ.)

Generic Character.

Pet. 4, unicum basi calcaratum. *Siliqua* 2-valvis, compressa, polysperma.—Herbæ *glabræ sæpe glaucæ. D C.*

Specific Character and Synonyms.

CORYDALIS *bracteata*; caule simplici diphyllo basi unisquamato squama recurvata, foliis biternatim sectis segmentis bi- vel tripartitis laciniis oblongis brevissime mucronulatis subintegris, bracteis cuneatis flabellatim incisis pedicellos superantibus, calcare adscendente recto obtusissimo pedicellum superante. *Ledeb.*

CORYDALIS bracteata. *Pers. Syn. Pl. v. 2. p.* 269. *De Cand. Prodr. v.* 1. *p.* 128. *Spreng. Syst. Veget. v. 3. p.* 160. *Ledeb. Fl. Altaica, v. 3. p.* 243.

FUMARIA bracteata. *Steph. in Willd. Sp. Pl. v. 3. p.* 858.

DESCR. *Root* a globose *tuber,* throwing out a few radicles from its base. *Stem* simple, inclined at the base, then erect, a span or more high, bearing a recurved, oblong, brown, membranous scale above the base, and above it, two petiolated, rather glaucous *leaves : these* are biternate; the primary divisions on partial petioles; the secundary ones sessile cuneate, more or less deeply trifid, or multifid, the segments linear or oblong, very obscurely mucronulate. *Raceme* terminal. *Bracteas* large, foliaceous, broadly cuneate, multifid; the lower ones as long as the flowers, all longer than the pedicels. *Flowers* of an uniform pale yellow colour; the upper and lower *petals* with large rounded deeply emarginate, spreading laminæ, often with a mucro in the notch: *calcar* or *spur* rather long, nearly straight, having only a slight curvature towards the obtuse extremity. *Inner petals* quite closed over the stamens and style. *Germen* linear-oblong; *Style* short; *Stigma* capitate.

By the liberality of Professor LEDEBOUR of Dorpat our gardens and our Herbaria have been enriched with some interesting species of this Genus, the result of his arduous journey to the Altai Mountains. The April number of our Magazine contains the pretty C. *longiflora*, of which much finer specimens than are there represented have been since communicated from the Birmingham Botanic Garden, by its zealous Curator, Mr. CAMERON. The species here figured also accompanied them, and both were sent to Mr. CAMERON by Professor LEDEBOUR. Native specimens from the same able Naturalist differ only in their larger size, and the almost entirely straight spur to the corolla. It is cultivated in a cool frame, and in such a situation flowers in March.

The species is compared by WILLDENOW with C. *nobilis*; but *that* is a larger plant, and has a far more leafy stem, denser raceme, shorter and much incurved spur, the laminæ of the upper and lower petals are smaller, and those of the two inner petals dark-coloured.

Fig. 1. Bractea and Flower: *magnified*.

3243.

W J H del^t. Pub. by S. Curtis, Glazenwood, Essex June 1.1833. Swan sc.

EPACRIS CERÆFLORA. WAX-FLOWERED EPACRIS.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—EPACRIDEÆ.)

Generic Character.

Calyx coloratus, multibracteatus; bracteis textura calycis. *Corolla* tubulosa, limbo imberbi. *Stamina* epipetala: antheris supra medium peltatis. *Squamulæ* 5, hypogynæ. *Capsula* placentis columnæ centrali adnatis. *Br.*

Specific Character and Synonym.

EPACRIS *ceræflora;* foliis lanceolatis patentissimis nudiusculis subaveniis apice attenuato-mucronatis marginibus scabris, floribus patulis axillaribus solitariis secundis, corollæ tubo ovato calycem acutum ciliatum bis superante.

EPACRIS ceræflora. *Graham in Edin. New Phil. Journ.*

DESCR. *Stem* erect, branched, very slender. *Branches* tomentose, purplish. *Leaves* lanceolate, acuminate, dark green above, paler below, mucronate, subpetiolate, spreading wide. *Flowers* collected near the extremities of the branches, white, secund, peduncled, patent. *Calyx segments* lanceolate, ciliated. *Corolla : tube* ovate, obscurely pentagonal, thrice as long as the calyx, pitted on the outside between the calyx segments, and having, corresponding elevations within; *limb* revolute, segments undulate, subacute. *Stamens* subexserted; *filaments* alternating with the elevation within the tube, and adhering through their whole length to the inside of the corolla; *anthers* dark leaden-coloured, *pollen granules* white. *Stigma* capitate, sublobate, flattened on the top. *Style* glabrous, somewhat thickened above its base, and again contracted, tapering a little towards the stigma. *Germen* green, glabrous, subrotund, embraced by the hypogynous scales at its base. *Unripe Capsule* subturbinate, pitted at the insertion of the style. *Seeds* erect, on a central placenta.

This species, a native of Van Diemen's Land, was raised at the Botanic Garden, Edinburgh, from seeds communicated by Mr. NEWBIGGING; and likewise by the Rev. EDWARD CRAIG, in January, 1831. It flowered for the first time in April and May, 1832, the plants being still very small.

Many of the plants flowered much more freely in March and April this year. *Graham.*

W. J. H. delt

Pub. by S. Curtis, Glazenwood Essex. June 1 1833.

Swan Sc.

ACACIA DECIPIENS, *var.* præmorsa. PARADOXICAL ACACIA, *variety.*

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Class and Order.

POLYGAMIA MONŒCIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Flores polygami. *Calyx* 4—5-dentatus. *Petala* 4—5, nunc libera, nunc in corollam 4—5-fidam coalita. *Stamina* numero vario, 10—200. *Legumen* continuum. *D C.*

Specific Character and Synonyms.

ACACIA *decipiens;* stipulis spinescentibus deciduis, phyllodiis triangularibus passimque trapezoideis, nervo lateri inferiori approximato in spinam producto, margine superiore dente acuto unico glandulifero (varietate, sæpius præmorso dentibus duobus vel tribus glanduliferis), capitulis subsolitariis multifloris. *Graham.*

ACACIA decipiens. (α.) *Brown, in Hort. Kew. ed.* 2. *v.* 5. *p.* 465. *Bot. Mag. t.* 1745. *De Cand. Prodr. v.* 2. *p.* 449. *Spreng. Syst. Veget. v.* 3. *p.* 133.

Var. β, præmorsa. *Graham, in Ed. N. Phil. Journ. for April,* 1833.

DESCR. *Shrub* erect, twigs arched, angled, glabrous; *bark* brown on the stem, green on the twigs. *Phyllodium* with one nerve, which passes near its lower side, triangular, the upper angle, except at the apices of the branches, truncated, and terminating in two or three short points, tipped with the glands, the lower angle extended into a prickle the continuation of the nerve. *Stipules* spinescent, spreading, subdeciduous. *Peduncles* glabrous, pellucid, spreading longer than the phyllodia. *Flowers* yellow, capitate, numerous in each head. *Calyx* four-toothed, teeth blunt and ciliated. *Corolla* of four petals, *petals* lanceolate, reflexed. *Stamens* numerous, longer than the corolla. *Pistil* longer than the stamens; *germen* ovate, downy.

We received, 1831, at the Botanic Garden, Edinburgh, from Mr. KNIGHT of the King's Road Nursery, the plant here described, under the name of ACACIA *præmorsa*. It was probably imported by Mr. BAXTER. There seems, however little doubt, but that it is a variety of A. *decipiens;* distinguished chiefly by its paler flowers, by the petals being more reflected, thus allowing the stamens to spread more, and producing a less distinctly lobular capitulum, and farther, by the upper angle of the leaf being oftener irregularly truncated than is the case in A. *decipiens*.

It flowered very freely in the greenhouse, receiving the usual treatment of New Holland ACACIAS. *Graham.*

Fig. 1. Portion of a Flowering Stem. 2. A single Flower: *magnified.*

3245.

Wm F. McNab. delt Pub. by S. Curtis, Glazenwood Essex. June 1.1833. Swan Sc.

(3245)

LEONTICE ALTAICA. ALTAIC LEONTICE.

* * *

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—BERBERIDEÆ.)

Generic Character.

Sepala 6, extus nuda. *Petala* 6, intus basi squamulam gerentia. *Capsula* vesicaria, 2—4-sperma. *Lamina* in fundo capsulæ inserta, globosa.—Herbæ *radice tuberosa,* foliis *varie sectis,* calycibus *sæpe coloratis. De Cand.*

Specific Character and Synonyms.

LEONTICE* *Altaica;* folio caulino solitario, petioli a basi tripartiti ramulis segmenta 5 oblonga integra subpetiolulata palmatim disposita gerentibus. *D C.*

LEONTICE Altaica. *Pall. Act. Petrop.* 1779. *p.* 257. *t.* 8. *f.* 1, 2, 3. *Willd. Spec. Pl. v.* 2. *p.* 149. *Pers. Synops. v.* 1. *p.* 386. *De Cand. Syst. Nat. v.* 2. *p.* 26. *Prodr. v.* 1. *p.* 110. *Spreng. Syst. Veget. v.* 2. *p.* 121. *Schult. Syst. Veget. v.* 2. *p.* 22. *Ledebour, Fl. Altaica, v.* 2. *p.* 52.

DESCR. *Root* tuberous. *Stem* erect, succulent, green, purple at the base. *Leaf* solitary, petioled; petiole 3-partite, divisions spreading, each bearing upon its summit, five elliptical, glaucous, unequal leaflets, each, particularly the largest, and those adjoining it, on partial petioles. *Racemes* terminal, deflected, of about twelve flowers: *bracteas* large, obovate, the lowest rotundato-reniform; *pedicels* spreading, single flowered, twice the length of the bracteas, farther elongated and cernuous when bearing the fruit. *Flowers* yellow. *Calyx* of six, spreading, elliptical, leaflets. *Petals* six, yellow, opposite to the leaflets of the calyx, erect, semi-cylindrical, truncated, biaristate at the apex, about half the length of the calyx. *Stamens* six, yellow, opposite to the petals, and longer than they; *anthers* bilocular, opening by the sides folding upwards to the apex, where they adhere to the *connectivum*. *Stigma* small, simple: *Style* short, angular: *Germen* inflated, membranous, unilocular. *Ovules* four, obovate, green, erect from the base of the germen, and afterwards exposed by the rupture of its apex.

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* From λεων, λεοντος, from a fancied resemblance in the leaves to the print of a lion's foot.

This very pretty plant was received by Mr. FALCONER from Mr. GOLDIE, and flowered very freely in a cold frame at Carlowrie in April. It is a native of the Altai Mountains, towards the Western part of which, it appears from LEDEBOUR, it is most abundant, flowering early in spring, while in the Eastern part it was not observed. According to the same author, it does not differ from LEONTICE *Odessana* of Dr. FISCHER.

In a most valuable collection of LEDEBOUR's plants, which I possess through the inexhaustible kindness of my friend Mr. HUNNEMAN, there is a specimen illustrating the singular appearance occasioned by the protrusion of the unripe seeds through the ruptured, membranous capsule. *Graham.*

Fig. 1. Flower and Bractea. 2. One of the Petals and of the Stamens. 3. Pistil. 4. Ovules situated in the base of the cell.

3246.

W. J. H. delt

Pub. by S. Curtis, Glazenwood Essex, June 1 1833.

Swan Sc.

ARABIS ROSEA. ROSE-COLOURED ROCK-CRESS.

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Class and Order.

TETRADINAMIA SILIQUOSA.

(Nat. Ord.—CRUCIFERÆ.)

Generic Character.

Siliqua linearis; valvis planis medio uninerviis. *Semina* in quoque loculo uniserialia, ovalia aut orbicularia, compressa. *Cotyledones* planæ, accumbentes. Flores albi aut rarius rosei.

Specific Character and Synonyms.

ARABIS *rosea;* foliis caulinis oblongis semiamplexicaulibus subcordatis sinuato-dentatis pube ramosa scabris, pedicellis calyce longioribus, siliquis lineari-elongatis subattenuatis erectis.

ARABIS rosea. *De Cand. Syst. v. 2. p.* 215. *Prodr. v.* 1. *p.* 142. *Spreng. Syst. Veget. v.* 2. *p.* 90.

DESCR. *Stem* erect, or somewhat declined at the base, a span or more high, downy. *Leaves* oblong, obtuse, downy, with stellated pubescence on both sides, but chiefly beneath, deeply toothed or sinuated, the lower or radical ones the largest, three to four inches long, tapering at the base, but scarcely petiolate: those of the stem rather numerous, oblong, or almost elliptical, obtuse at both extremities, quite sessile, and somewhat half-embracing the stem, but scarcely cordate. *Flowers* large in proportion to the size of the plant, collected into a dense, rounded raceme or corymb, of a beautiful and rather deep rose colour. *Pedicels* slender, longer than the calyx. *Calyx* of four nearly equal, erect, or very slightly patent, oblong, green sepals, two, opposite ones, very slightly saccate at the base. *Petals* oblong, cuneate, clawed, obtuse or almost retuse at the extremity; the claws pale or even yellowish at the base. *Stamens*, the longest of them, shorter than the petals. *Filaments* whitish purple: *Anthers* yellow. *Pistil*: *Germen* linear, with four glands at its base. *Style* short: *Stigma* small, two-lobed. As the fruit advances to maturity, the raceme becomes considerably lengthened. The pods are three inches or more long, erect, linear, compressed, very slender, attenuated into the short, persistent style, slightly beaded by the numerous seeds within, arranged in a single row.

For the opportunity of figuring this beautiful and rare plant, I am indebted to H. F. Talbot, Esq. M. P., who obligingly communicated the specimens here represented from the garden of the Rev. Mr. Selwyn, of Kilmington, Wilts; where it flowered, probably for the first time in this country, in the month of February, 1833. The nearly ripe fruit appeared in March. The species is a native of Calabria, and it is best treated by keeping it under a frame; though it will perhaps prove quite hardy, only having its flowers retarded by the backwardness of our springs.

Fig. 1. Flower. 2. Petal. 3. Stamens. 4. Pistil: *magnified*. 5. Raceme of Fruit, *nat. size*.

3247.

W. J. H. del. Pub. by S. Curtis Glazenwood Essex. June 1 1833 Sw. sc.

PTERIS PEDATA. PEDATE-LEAVED BRAKE.

* * *

Class and Order.

CRYPTOGAMIA FILICES.

(Nat. Ord.—FILICES.)

Generic Character.

Sori continui, lineares, marginales. *Involucrum* e margine frondis inflexum interius dehiscens.

Specific Character and Synonyms.

PTERIS[*] *pedata;* fronde 5-partita glabra, laciniis pinnatifidis acutiusculis, lateralibus basi unitis, infimis deflexis, stipite lævi.

PTERIS pedata. *Swartz, Syn. Fil. p.* 205. *Schkuhr, Fil. p.* 91. *t.* 100. *Willd. Sp. Pl. v.* 4. *p.* 358. *Raddi, Fil. Brasil. p.* 45. *t.* 65. *f.* 3. *t.* 66 *et* 66, *bis. Spreng. Syst. Veget. v.* 4. *p.* 70.

HEMIONITIS foliis atro-virentibus, &c. *Sloane, Jam. v.* 1. *p.* 73.

HEMIONITIS profunde laciniata, &c. *Plum. Am. p.* 24. *t.* 34. *Fil. p.* 130. *t.* 152.

DESCR. *Root* a dense mass of dark brown, woolly fibres. *Stipites* several from the same root, four to six inches long, dark purple-brown, glabrous, smooth and very glossy, often a little wavy. *Fronds* very variable. In the specimen before me, the young ones are palmately six-lobed, the lobes short, obtuse, the margin sinuated. As these advance to maturity, the divisions become deeper, the segments longer, and the frond is quinque-partite in a palmated manner; the mid-

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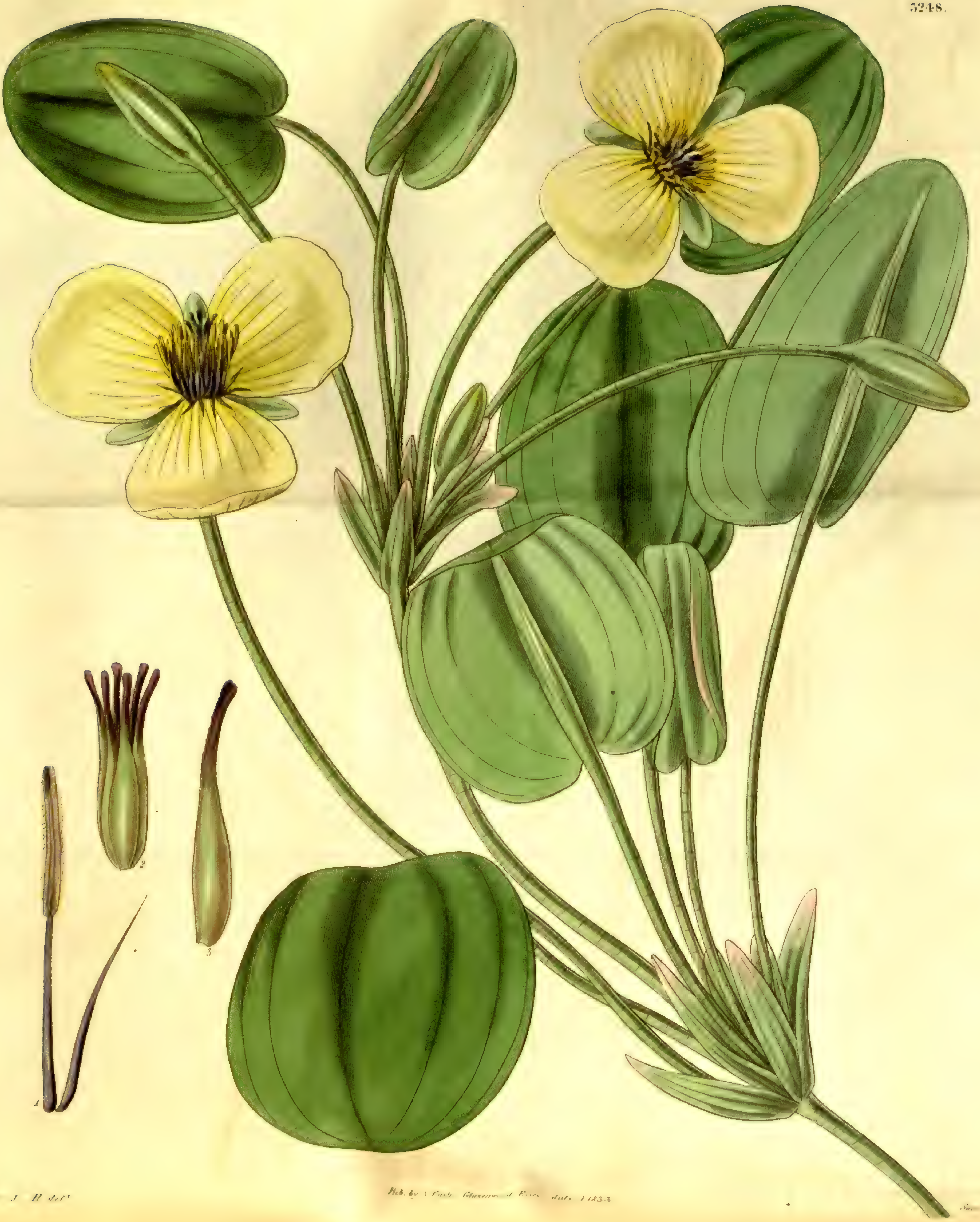
[*] The same as πτερις, a *Fern*, in Greek, and that from πτερυξ, a *plume*, or *feather*.

dle division deeply pinnatifid, or even bipinnatifid; the segments lanceolate, rather acuminated, but not very sharply: the lateral ones, two on each side, combined at the base, (or they may be considered, each pair, as one, and bipartite); the lowermost lobes deflexed. The colour is dark green above, paler beneath: the costa dark purple, especially at the base of the lobes, and glossy. The involucrum is continuous along the margin of the whole frond, following all its sinuosities. Such seems to be the most usual appearance of the plant, but Raddi has described and figured some remarkable variations, to which it seems, in its native country, to be liable, being more or less divided, and the segments of very various breadths.

Although not yet common in the stove of our gardens, where it is readily cultivated, it is of frequent occurrence in the tropics, and probably most of the warmer parts of the world. It was received at the Botanic Garden of Glasgow from Jamaica, where, as well as in Brazil, it is extremely abundant. The bright green of the foliage, margined by the pale brown line of the involucre, and the glossy black-purple stipites render this Fern a desirable inmate in collections.



W. J. H. delt.

Pub. by S. Curtis, Glazenwood Essex, July 1 1833.

Swan sc.

LIMNOCHARIS HUMBOLDTII. HUMBOLDT'S LIMNOCHARIS.

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Class and Order.

POLYANDRIA POLYGYNIA.

(Nat. Ord.—BUTOMEÆ.)

Generic Character.

Calyx trifoliolatus. *Cor.* tripetala. *Stamina* numerosa; filamentis exterioribus sterilibus. *Pistilla* 6—20, arcte posita. *Capsulæ* interne longitudinaliter dehiscentes, uniloculares, polyspermæ. *Semina* numerosa reti capsularum parietem intus vestienti affixa, adscendentia, ferri equini instar flexa, transversim scabra. *Albumen* nullum. *Embryo* hippocrepicus.—Herbæ *aquaticæ; acaules aut caulescentes.* Folia *petiolata; petiolo basi vaginante.* Scapi *multiflori, floribus umbellatis, involucratis, aut pedunculi axillares uniflori spatha instructi. Kunth.*

Specific Character and Synonyms.

LIMNOCHARIS[*] *Humboldtii*; foliis apice rotundatis 7-nerviis, petiolis pedunculisque unifloris cylindricis, petalis calyce duplo longioribus, pistillis 6.

LIMNOCHARIS Humboldtii. *Rich. in Ann. du Mus. v.* 1. *p.* 369. *t.* 19. *Humb. et Kunth, Nov. Gen. v.* 1. *p.* 248. *Spreng. Syst. Veget. v.* 2. *p.* 634.

STRATIOLES nymphæoides. *Willd. Sp. Pl. v.* 4. *p.* 821.

DESCR. Aquatic. *Stems* a foot or more long, terete, semipellucid, internally jointed, bearing, at intervals, a whorl, as it were, of petiolated, roundish-oval and somewhat

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[*] From λιμνη, *mud,* and χαρις, *grace,* or *ornament.* Its beautiful flowers adorn moist muddy places.

what cordate, obtuse leaves, with a central rib, which is remarkably swollen below, and three slender ones on each side near the margin: *petioles* terete, almost pellucid, jointed within; their bases surrounded with oblong, membranous, convolute stipules. *Peduncles* elongated, single-flowered, rising from among the petioles and internally jointed like them. *Calyx* of three, oblong, patent, green leaves. *Corolla* of three, very large obovato-rotundate, very obtuse, slightly concave, spreading petals, twice the length of the calyx, of a delicate primrose colour, faintly striated, rather a deep yellow at the base. *Stamens* numerous: *Filaments* deep, bluish-purple, subulate; outer ones sterile: *Anthers* linear, purple: *Pollen* yellow. *Pistils* six, erect, linear-oblong, standing close together, attenuated into a rather slender style: *Stigma* purple, velvety, from the extremity decurrent for some way down on the inside.

Some time ago, I received from Mr. TWEEDIE of Buenos Ayres specimens of this plant, gathered in pools or ditches of fresh water, near that city. Seeds were likewise sent from the same source to the Botanic Garden of Liverpool, where the plants raised from them were successfully treated in the aquarium by Messrs. SHEPHERDS, and the handsome and delicate flowers burst open in great perfection in April, 1833. They are, however, like those of HYDROCHARIS *Morsus Ranæ,* of our country, very fagacious, and but for the greatest care on the part of Mr. HENRY SHEPHERD, I could not have received them in a state fit for drawing. Except in the absence of the sterile stamens around the fertile ones, I do not see how the HYDROCLEYS *Commersoni of* RICHARD, l. c. p. 368, t. 18, differs from this plant, and it is an inhabitant of the same country. I possess what I take to be the same plant, gathered abundantly in British Guiana by C. S. PARKER, Esq., inhabiting the same places with the beautiful PONTEDERIA *azurea,* Bot. Mag. t. 2932.

Fig. 1. Perfect and outer sterile Stamen. 2. Pistils. 3. Single Pistil: *magnified.*

5249.

W. Fitch del.

Pub. by S. Curtis Glazenwood Essex July 1 1861.

OXYLOBIUM ELLIPTICUM. ELLIPTIC-LEAVED OXYLOBIUM.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Cal. profunde 5-fidus, bilabiatus. *Cor.* carina compressa, longitudine alarum vexillum explanatum æquantium. *Stamina* toto aut imo calyci inserta. *Stylus* adscendens. *Stigma* simplex. *Legumen* aut subsessile, polyspermum, ventricosum, ovatum, acutum.—Frutices *suffruticesve.* Folia *3im 4im verticillata, integra.* Flores *corymbosi, flavi. D C.*

Specific Character and Synonyms.

OXYLOBIUM *ellipticum;* foliis ovali-oblongis mucronatis subverticillatis, bracteis infra apicem pedicelli caducis, capitulis terminalibus racemosis (leguminibus calyce duplo longioribus. *Br.*).

OXYLOBIUM ellipticum. *Br. in Hort. Kew. v. 3. p.* 10. *De Cand. Prodr. v.* 2. *p.* 104. *Spreng. Syst. Veget. v.* 2. *p.* 349.

GOMPHOLOBIUM ellipticum. *Labillard. Nov. Holl. v.* 1. *p.* 106. *t.* 135.

CALLISTACHYS elliptica. *Vent. Malmais. t.* 115.

DESCR. *Shrub* erect; *bark* on the stem brown, greenish and somewhat silky on the branches. *Leaves* (one inch long four lines and a half broad) elliptical, mucronate, coriaceous, shortly petioled, dark-green, reticulate and glabrous above, somewhat silky below, reflected in the edges, subverticillate, four in each whorl. *Flowers* yellow; in terminal, capitate spikes. *Bracteæ* single below the origin of each pedicel, and opposite a little above the middle, linear-subulate,

caducous, silky. *Pedicels* spreading wide, silky. *Calyx* equal in length to the pedicel, bilabiate, upper lip of two approximated, lower of three spreading acute, segments. *Petals* five, nearly of equal length; *standard* concave, semicircular, crenate, slightly marked with orange in the throat, claw short; *alæ* elliptical, truncated at the base, claw very slender, keel of two petals united in the middle, subinflated, each petal shaped like one of the alæ, but with rather a longer claw, and with a pouch projecting outwards and backwards to near its base. *Stamens* hypogynous included, free: *filaments* slightly compressed: *anthers* inserted by their backs; *pollen* yellow. *Style* ascending, exserted. *Stigma* small, blunt. *Germen* pedicelled, shorter than the stamens, silky. *Ovules* about eight.

Seeds of this plant were received at the Botanic Garden, Edinburgh, from Van Diemen's Land, through WILLIAM HENDERSON, Esq. in February, 1829, marked "*Prussian Shrub.*" The plant has been treated in the greenhouse, in the usual way of New Holland Shrubs, and in April last, when above three feet high, it flowered for the first time—every subdivision of its numerous branches bearing, upon its apex, a crowded bunch of flowers.

It appears from the Hortus Kewensis that the species was introduced from Van Diemen's Land, by Mr. BROWN, in 1805; but it seems to have been afterwards lost.

The profusion of flowers with which it is covered, and the continued succession of these during a long while, renders it a very desirable species for cultivation. *Graham.*

Fig. 1. Back view of a Flower. 2. Front view of ditto. 3. Vexillum, 4. Stamen. 5. Pistil.—*Magnified.*

3250.

W. J. H. delt. Pub. by S. Curtis Glazenwood Essex July 1. 1833 Swan Sc.

TRILLIUM ERECTUM; *var.* viridiflorum. UPRIGHT-STALKED TRILLIUM; pale green-flowered *var.*

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Class and Order.

HEXANDRIA TRIGYNIA.

(Nat. Ord.—SMILACEÆ.)

Generic Character.

Cal. 3-phyllus. *Cor.* 3-petala, patens. *Filamenta* glabra. *Antheræ* longitudinaliter adnatæ. *Stigmata* linearia, sessilia, reflexa. *Bacca* trilocularis, polysperma.

Specific Character and Synonyms.

TRILLIUM *erectum;* pedunculo erecto, flore inclinato, petalis late ovatis subreflexis calycem patentissimum subæquantibus, foliis lato-rhomboideis.

TRILLIUM *erectum, α,* flore atro-purpureo. *Linn. Sp. Pl. p.* 484. *Curt. Bot. Mag. t.* 470. *Pursh, Fl. Am. v.* 1. *p.* 245. *Elliott, Carol. v.* 1. *p.* 427. *Torrey, Fl. of Mid. Un. St. v.* 1. *p.* 376. *Schult. Syst. Veget. v.* 7. *p.* 1501.

TRILLIUM rhomboideum. *Mich. Fl. Bor. Am. v.* 1. *p.* 213. *Spreng. Syst. Veget. v.* 2. *p.* 150.

(β.) petalis albis. *Mich. Am. l. c. Gawl. in Bot. Mag. t.* 1027.

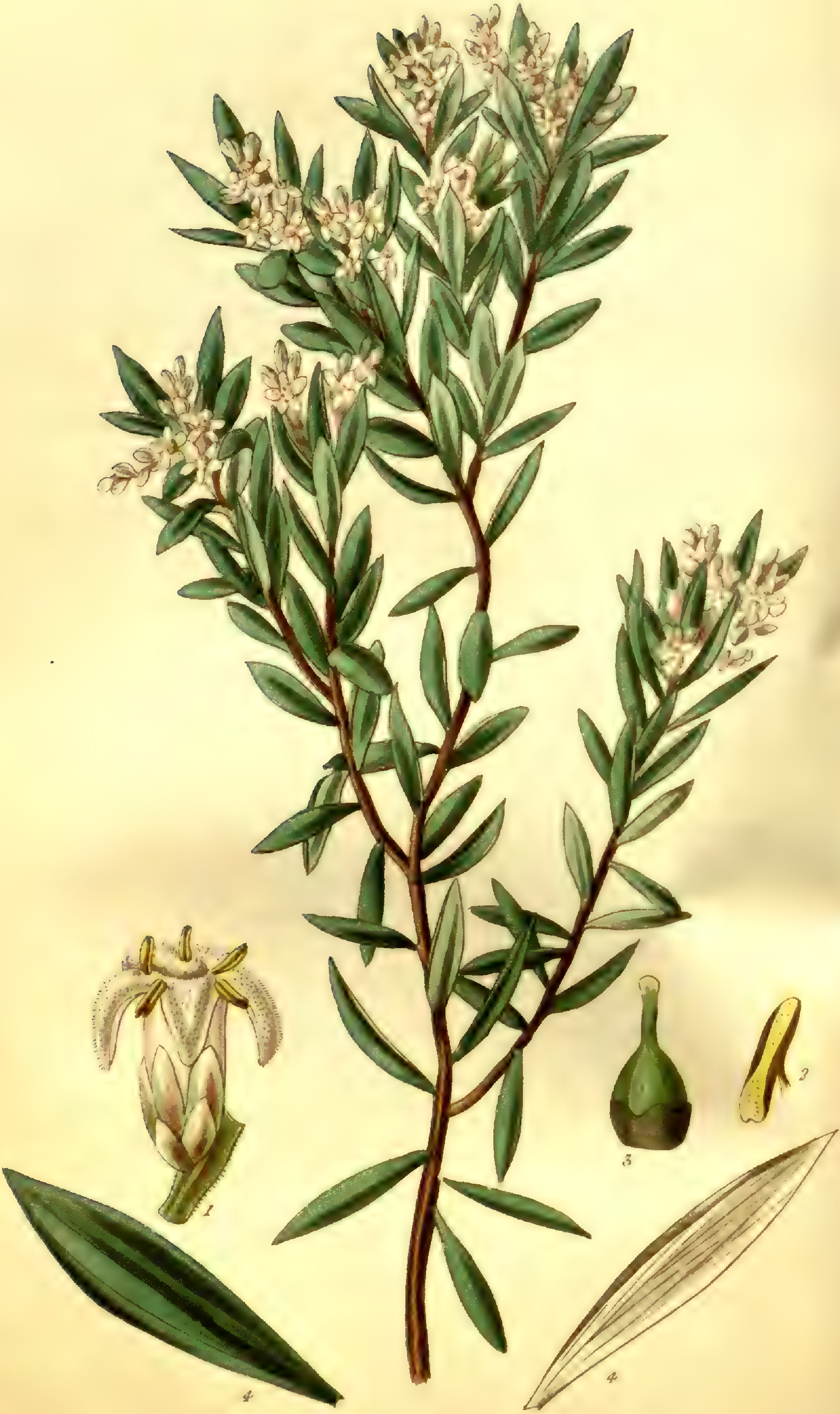
(γ.) petalis ochroleucis. *Tab. nostr. t.* 3250. T. pendulum. *Willd. in Nov. Act. Soc. Berol.* 3. *p.* 421. *Hort. Berol. t.* 35. *Pursh, Fl. Am. v.* 1. *p.* 246. *Elliott, Carol. v.* 1. *p.* 428.

That this is the real T. *pendulum* of WILLDENOW, no one, I think, can entertain any doubt who will be at the trouble of comparing our figure with that of WILLDENOW. Yet again, I fear that those who will also compare it with T. *erectum,* will be satisfied that it differs from that in almost

nothing save in the colour of the flower. I fear Botanists have been misled by the terms " pendulous" and " cernuous" applied by authors to the flower of this plant, and hence many have been led to suppose it to be drooping like that of T. *cernuum*. Whereas the flower is only slightly inclined, as it were from its own weight, at the extremity of the slender peduncle.

Our plants were received at the Botanic Garden of Glasgow, from Canada, by favour of Mr. CLEGHORN, and they flowered under a frame in the month of April, 1833. It is quite unnecessary to enter into a full description of this variety, which only differs from α, in the differently coloured petals, and from β, in the same particular, and in the broader petals.

Fig. 1, 2. Stamens. 3. Pistil: *magnified.*



J H delt

Pub. by S. Curtis. Glazenwood. Essex. July 1.1833.

LEUCOPOGON RICHEI. RICHE'S LEUCOPOGON.

****

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—EPACRIDEÆ.)

Generic Character.

Cal. bibracteatus. *Cor.* infundibuliformis, limbo patenti, longitudinaliter barbato. *Filamenta* inclusa. *Ovarium* 2—3-loculare. *Drupa* baccata v. exsucca, nunc crustacea.—Frutices *sæpe humiles.* Folia *sparsa, quandoque interrupto-conferta.* Flores *spicati, axillares v. terminales.* Discus *hypogynus cyathiformis, sublobatus, raro nullus. Br.*

Specific Character and Synonyms.

LEUCOPOGON *Richei*; spicis erectis confertifloris folio parum brevioribus, foliis (subuncialibus) oblongo-lanceolatis oblongis vel sæpè oblongo-ovatis extra medium latioribus 3—5-nervibus supra convexis glabris, drupis ovatis 5-locularibus. *All. Cun.*

LEUCOPOGON Richei. *Br. Prodr. Flor. Nov. Holl. vol.* 1. *p.* 541. *Roem. et Sch. Syst. Veget. vol.* 4. *p.* 475.

LEUCOPOGON polystachyus. *Lodd. Bot. Cab. t.* 1436 (non *Br. Prodr.*) benè.

LEUCOPOGON apiculatus? *Smith in Rees Cyclop.* (non *Br. Prodr.*)

LEUCOPOGON parviflorus. *Lindl. in Bot. Reg. t.* 1560.

STYPHELIA Richei. *Labill. Nov. Holl.* 1. *p.* 44. *t.* 60. (fide exempl. a D. LABILLARDIERE.) *Poiret Encycl. Method.* 7. *p.* 433. *n.* 1. *Spreng. Syst. Veget. vol.* 1. *p.* 657.

STYPHELIA parviflora. *Andrews' Reposit. t.* 287. mala.

STYPHELIA Gnidium. *Venten. Malm. t.* 23. pessima.

DESCR. A small, glabrous *shrub,* with wavy branches. *Leaves* scattered, scarcely an inch long, lanceolate or oblongo-

longo-lanceolate, acute, rigid, glaucous green, obscurely three to five-nerved, convex above. *Spikes* small, crowded, terminal, rather shorter than the leaves. *Calyx* and *bracteal scales* oblongo-ovate, imbricated, white or very pale green, often red in the centre. *Corolla* white: its tube oblongo-cylindrical: its limb five-cleft; the segments reflexed, densely hairy within. *Anthers* almost sessile, linear-oblong, brownish-red; *pollen* yellow. *Hypogynous disk* cup-shaped, lobed, dark brownish green. *Germen* roundish-oval: *Style* about the same length. *Stigma* somewhat capitate.

"The EPACRIDEÆ form a most remarkable and extensive tribe of plants in Australia, the temperate regions of which they more particularly inhabit, and by their abundance and wide dispersion upon its coasts, and in portions of its explored interior, give a striking feature to the vegetation of that singular country, where they occupy the place of the Heaths of Southern Africa. Of this highly interesting family, so desirable to our cultivation, Mr. BROWN has described one hundred and thirty-five species; and of these upwards of one-third are of the Genus of our present subject.

"Although our plant has been already noticed, and under several names, we are, nevertheless, happy to give a representation of it, taken from specimens which flowered last year in the Royal Gardens at Kew, because it affords us an opportunity of publishing the correct synonymy of a species clearly but little understood, which has been obligingly communicated to us by Mr. BROWN; to whom also we are indebted for the following observations.

"'Sir JAMES EDWARD SMITH, in REES' Cyclopædia, first remarked that I had improperly referred ANDREW'S STYPHELIA *parviflora,* and VENTENAT'S S. *Gnidium* to his S. *lanceolata,* and is disposed to consider them as belonging to my LEUCOPOGON *apiculatus,* from which, they are still more distinct. Sir JAMES E. SMITH had received specimens of his plant from Port Jackson, and these specimens I have ascertained to belong to LEUCOPOGON *Richei,* to that state especially, in which I observed it between Port Jackson and Botany Bay, in 1803. He remarks (l. c.) that those native specimens agree with a plant *then* not unfrequent in the gardens; and hence probably he refers without hesitation to ANDREWS'S figure, which I still designate as a bad representative of LEUCOPOGON *Richei,* as I had done in referring it formerly to L. *lanceolatus.* VENTENAT'S STYPHE-

LIA *Gnidium*, which from circumstantial, rather than internal evidence, was probably intended for the same species, is still worse, especially in its leaves. The figure in the Botanical Register is tolerable; but LODDIGES, in the Botanical Cabinet is the best, being much more characteristic than LABILLARDIERE'S taken from a specimen with uncommonly large leaves, which are not represented as *convex*, sensibly *widening upwards*—two characters, on which I chiefly depended in distinguishing this species.' *R. Brown, MSS.*

"Thus it appears, that our plant is evidently an old inhabitant of the gardens about London, where, by reason of its disposition to vary in habit as well as in the shape of its leaves, it has borne several names, although it would seem it has never been known among cultivators by that originally applied, and now again restored to it;—a name, that has a reference to a tale of distress and privation, to which M. RICHE, one of the Naturalists who accompanied D'ENTRECASTEAUX in his voyage in search of LA PEYROUSE was subjected, in December, 1792, on the desert shores of Southern Australia, when the two French ships La Récherche and L'Esperance anchored among the group of islands subsequently named, after the admiral's ship, 'the Archipelago of the Recherche.' The discoveries made by NUYTS in 1627 on the South coast had terminated at this Archipelago; and as it does not appear, that either the Dutch at that period, or Captain VANCOUVER when on that coast in 1791, more than a century and a half subsequently, had effected a landing, our earliest knowledge of the character of the productions of this part of Nuyts' land, slight as it was, is due to the visit of M. RICHE, and especially to his subsequent misfortune.

"We gather from M. LABILLARDIERE, (the Botanist of the expedition,) that on the morning of the 16th of December, 1792, a boat having been sent from L'Esperance to the main shore, for the purposes of Astronomical observation, Citizen RICHE (attached as Naturalist to that vessel) accompanied the party.

"Quitting the beach on which he had landed, (some miles to the Westward of Cape le Grand, in long. 121¾° E.) and with the design of returning early in the afternoon to the boat, 'that Naturalist,' says LABILLARDIERE, 'became enraptured with the riches and novelty of all the productions of that region, which no observer had hitherto visited,' and, quickly losing his way, he wandered to some

distance

distance inland, over a desert country, occasionally presenting plains of calcareous sand; nor was he able to find his way back to the landing place until the third day! so that the distress, which his absence had occasioned on board the ships was extreme. A boat was despatched on the second day from each vessel in quest of the lost Naturalist, and the admiral ordered guns to be fired every half hour, to enable M. RICHE, if still alive, to direct his steps with the greater certainty towards the anchoring-place: M. LABILLARDIERE himself was of the party.

"The parties traced his course over the sterile waste he had traversed, to the edge of a large lake, which they concluded had a communication with the sea, as its waters were salt. The print of his shoes, observed on the margin of this considerable water, furnished encouragement to proceed in their search, but that the marks of naked feet which appeared near his, gave grounds for apprehending that he had been dragged by the savages into the interior country. Moreover, one of his pistols and his handkerchief were found on the sands; and these strengthened in their minds, their apprehensions of his fate. Further on, the little smoke that arose from a deserted fire directed their steps to the spot, and near it they found bits of paper on which they recognized the hand-writing of the unfortunate man. Around them, the dismal waste extended far and wide, but no further trace of M. RICHE was to be found; when as they were returning towards the landing place, lamenting the fate of their unfortunate messmate, and had nearly reached the shore in a hopeless state of mind, they beheld one of the boatmen running to meet them, with the pleasing intelligence, that RICHE was still alive, and that he had just arrived at the landing-place, extenuated with hunger and fatigue, having been upwards of fifty-four hours on shore, with no other provision, than some bits of biscuit. When he had recovered from the state of stupor, into which he had been thrown by so long a privation of nourishment, he told his companions, that he had lost himself on the first day; but that near the fire, which he had found burning, there was a little rill of fresh water, at which he had quenched his thirst, and urged by hunger, he had ranged about in the neighbourhood, and in the thickets had discovered a shrub, which furnished him with some small fruit, but in a quantity insufficient for the supply of his necessities. To that shrub, the plant we have here defined and figured, M. LABILLARDIERE, who originally described it, attached the name of the recovered Naturalist, as much out of compliment to him, as with a view to perpetuate the remembrance of the circumstances under which it had been discovered.

"At the little spring of water,—a rare discovery in the midst of an arid waste,—he passed the first night, and the next day was wholly spent in a fruitless attempt to gain the landing-place. 'In all this painful peregrination,' says LABILLARDIERE, 'M. RICHE did not meet with a drop of water, although he saw in those wilds, at some distance from him, Emus, Kangaroos, and even some of the aboriginal inhabitants, who, however, fled before him as he advanced:—but chance (rather, a kind Providence) happily conducted him in the evening to the same little rill, where he spent a second night.' Notwithstanding the distress to which his situation had reduced him, exposed as he was to all the horrors of famine, M. RICHE carried during these two days 'a numerous collection of very interesting productions' of the country he had traversed; 'but during the third day, his strength *sunk so rapidly*,' before he reached the boats, that '*he was obliged to abandon the whole collection, not being able to reserve even the most precious articles.*'

"This first landing on the inhospitable shores of Nuyt's Land by the French was not, however, wholly lost to science; for M. LABILLARDIERE, amidst his anxiety to urge the prosecution of the search for his lost countryman, did not fail to make some observation on the few birds that inhabit the shores, nor to form some little collection of the fine plants which, notwithstanding the aridity of the soil, were nevertheless able to maintain an existence. Thus, among other plants, with which that painful excursion first made us acquainted, may be enumerated, besides our LEUCOPOGON, BANKSIA *repens* and *nivea*; CHORIZEMA *ilicifolia*; EUCALYPTUS *cornuta* and ANIGOZANTHUS *rufa*. The last notice we find of M. RICHE, after his return to France, is from LABILLARDIERE himself: namely, 'that he fell a victim to his love for science, having made, when already in a very advanced stage of consumption, a long and fatiguing journey, in which he consulted his scientific zeal, more than the state of his health.'

"Mr. BROWN has substantially perpetuated his memory, by giving his name to a very singular plant likewise of this Order, growing abundantly on the summit and sides of

Mount Wellington *, near Hobart Town, Van Diemen's Land, which would therefore be almost hardy in our gardens, to which, however, it remains yet to be introduced.

" No species of LEUCOPOGON is so widely scattered in its native country, as the subject of our present paper. It has been observed occupying portions of the sandy shores of New South Wales, from Botany Bay, southerly towards Cape Home: again it exists at Port Dalrymple, Van Diemen's Land, and on the islands in Bass' Strait; and it has been gathered at Port Philip and other parts of the South Coast; and at King George's Sound it was observed by Mr. BROWN, in the voyage of Captain FLINDERS; and on the shores of the latter, it was subsequently met with by Mr. CUNNINGHAM, bearing its white drupaceous fruit in the month of January (1822). At the present day L. *Richei* is comparatively rare in our gardens, where it requires the same description of treatment as others of the Order: viz. the protection of a cold greenhouse, and flowering in the spring and summer months." *Allan Cunningham.*

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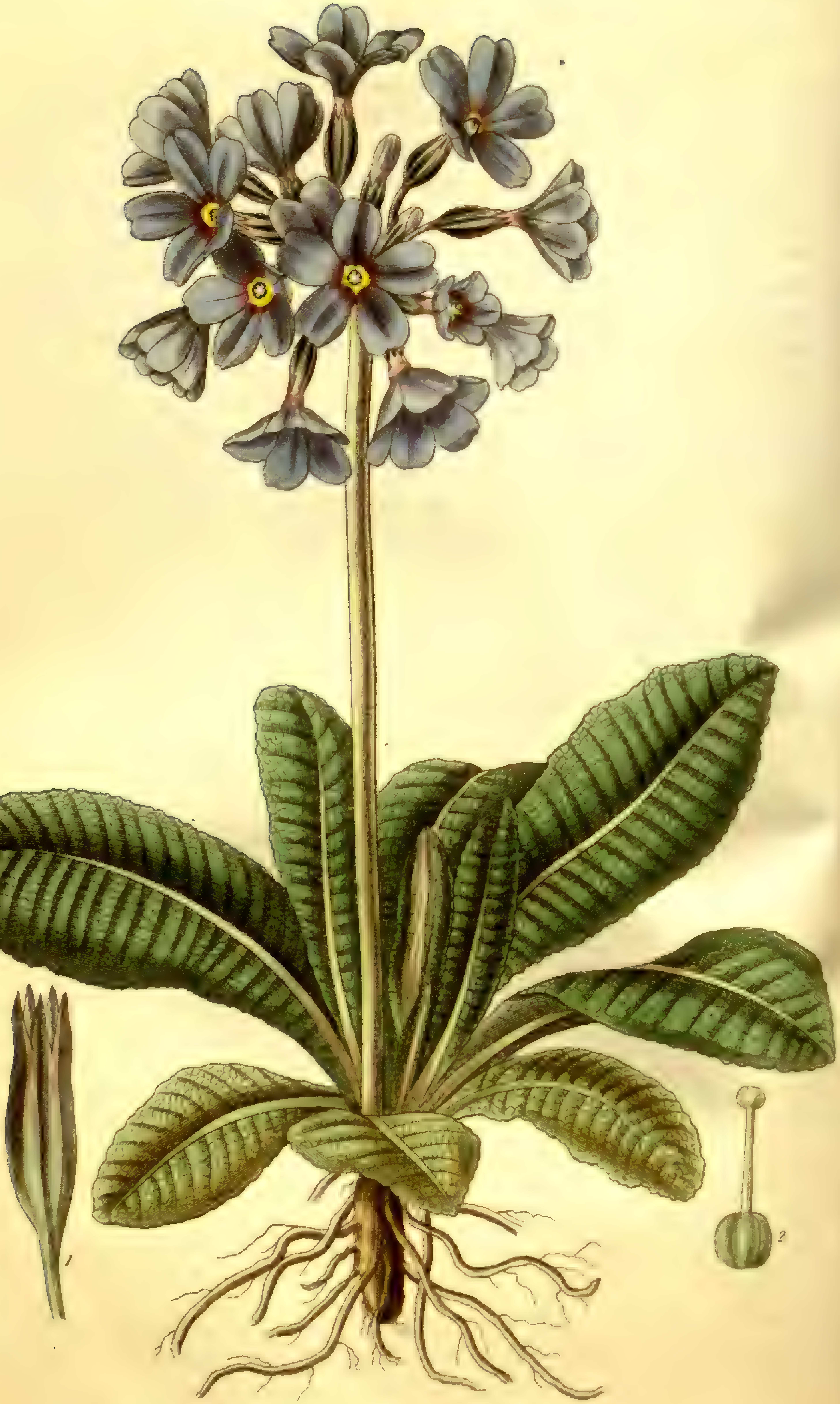
* This remarkable mountain, is about the same elevation above the level of the ocean, as Ben Nevis in Scotland, and its summit is covered with snow during the winter months. *A. C.*

Fig. 1. Flower. 2. Stamen. 3. Pistil and Gland. 4, 5. Upper and under side of a leaf: *magnified.*

3252.



Mr. James McNab delt.   Pub. by S. Curtis. Glazenwood. Essex July 1.1833.   Swan Sc.

PRIMULA AMÆNA. PURPLE CAUCASIAN PRIMROSE.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—PRIMULACEÆ.)

Generic Character.

Flores subumbellati, involucrati. *Cal.* tubulosus, 5-fidus, s. 5-dentatus. *Cor.* tubulosa, fauce vel nuda, vel glandulosa, limbo 5-lobo. *Caps.* apice 10-dentata, polysperma. *Spr.*

Specific Character and Synonyms.

PRIMULA *amæna*; foliis spathulato-oblongis rugosis crenato-denticulatis hirsutiusculis subtus incano-lanatis, umbellis multifloris tomentoso-villosis, involucris subulatis, calycibus ovato-oblongis angulatis, corollæ limbo plano glabro tubo calyce vix longiore, collo hemispherico.

PRIMULA amæna. *M. Bieberst. Fl. Taurico-Caucas. v.* 1. *p.* 138. *Lehman. Mem. Primul. p.* 39. *t.* 3. *Roem. et Schult. Syst. Veget. v.* 4. *p.* 137. *Spreng. Syst. Veget. v.* 1. *p.* 574.

DESCR. *Leaves* (three inches and a half long, one and a quarter broad,) spathulato-oblong, crenate and denticulate, much attenuated towards the base, but scarcely petioled, slightly hirsute and bright green above, densely covered with white wool below, neatly and regularly rugose, middle rib and veins very prominent behind, primary veins nearly at right angles to the middle rib and secondary veins, which are nearly equidistant, reticulated at the edges of the leaf. *Scape,* with the *flowers,* seven inches high, lateral, erect, tomentoso-villous; *umbel* many-flowered; *involucre* awlshaped; *pedicels* erect, unequal (from half an inch to an inch long), pubescent. *Calyx* (four lines and a half long,) glanduloso-pubescent, pentagonal, ovato-oblong, five-toothed, angles prominent and green, interstices membranous, diaphanous, and purplish. *Corolla* very handsome, purplish-lilac in bud or when recently expanded, more blue after a few days; *tube* scarcely longer than the calyx, purple, glabrous, wrinkled; *faux* hemispherical, slightly glanduloso-pubescent and purple on the outside, yellow within; *limb* spreading, nearly flat, segments elliptical, emarginate. *Anthers* nearly sessile in the throat, yellow, *pollen* yellow. *Germen* globular, glabrous, lobed. *Style* (in the specimen described, but, as in allied species, its length probably varies) twice the length of the germen. *Stigma* large, hemispherical.

This most desirable addition to the cultivated species of a universally admired Genus, was obtained by Mr. NEILL from Mr. GOLDIE, who brought it from St. Petersburgh. It flowered beautifully in the cold frame at Canon Mills in April last, producing an umbel of eighteen perfect flowers. In its native station, the Caucasian Alps, it is described by MARSCHALL BIEBERSTEIN, its discoverer, as having an umbel with from three to ten flowers; and a variety is noticed by BIEBERSTEIN in which the scape is wanting, the pedicels being all radical and single-flowered; another analogy, if any were wanting, to confirm the opinion, that there is no specific distinction between PRIMULA *vulgaris* and P. *elatior*, our common Primrose and Oxlip. *Graham.*

Fig. 1. Calyx. 2. Pistil.

W. J. H. delt

Pub. by S. Curtis Glazenwood Essex July 1 1833

EPACRIS NIVALIS. SNOWY EPACRIS.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—EPACRIDEÆ.)

Generic Character.

Cal. coloratus, multibracteatus, bracteis textura calycis. *Corolla* tubulosa, limbo imberbi. *Stamina* epipetala: antheris supra medium peltatis. *Squamulæ* 5, hypogynæ. *Capsula* placentis columnæ centrali adnatis.—Fruticuli *ramosi, sæpius glabri.* Folia *sparsa, petiolata v. basi simplici.* Flores *axillares, in spicam foliatam sæpius digesti, albi v. purpurascentes. Br.*

Specific Character and Synonyms.

EPACRIS *nivalis;* foliis ovato-lanceolatis patentissimis nudiusculis infra nervosis apice attenuatis mucronatis marginibus scabris, floribus axillaribus solitariis secundis in pseudo-spicis longis aggregatis, corollæ tubo campanulato, calycibus acutis ciliatis multo longiora. *Graham.*

EPACRIS nivalis. *Lodd. Bot. Cab. t.* 1821. *Bot. Reg. t.* 1531.

DESCR. *Shrub* evergreen, with many long, slender, tomentous branches. *Leaves* scattered, spreading, ovato-lanceolate, attenuated at the apex and mucronate, dark green, slightly paler and three-nerved below, nearly glabrous, edges slightly scabrous. *Flowers* solitary, axillary, peduncled, secund, cernuous, collected into long pseudo-spikes on the upper part of the branches; *peduncles* shorter than the leaves, tomentous, scaly. *Calyx* coloured, segments very acute, ciliated. *Corolla* white, glabrous; *tube* campanulate, five-sided, pitted on the outside towards its base, so as to close it over the germen, about thrice as long as the calyx; *limb* of five reflected, cordato-ovate segments. *Stamens* alternate with the segments of the limb; *filaments*

filaments adhering to the tube; *anthers* nearly sessile in the throat, red, linear, versatile. *Stigma* of five lobes, yellow. *Style* glabrous, white, attenuated towards its apex. *Germen* globular, green. *Hypogynous scales* semicircular, closely applied to the lower half of the germen.

This exceedingly beautiful species was introduced into the garden of Messrs. Loddiges, by H. M. Dyer, Esq. in 1829. The specimens now described form pretty large bushes, and most attractive ornaments to the greenhouse in the extensive collection of Mr. Cunningham, at Comely Bank Nursery, near Edinburgh, where they were profusely covered with blossoms in April. It is extremely difficult to get written characters to distinguish E. *ceræflora*, E. *nivalis*, and E. *impressa*, though obviously very different species. The difficulties are increased by each seeming to vary considerably, and that in parts of structure which were considered diagnostic of the species. In the reformed characters which I have attempted, I am forced, in distinguishing these three from each other, to rely chiefly on the tube of the corolla.

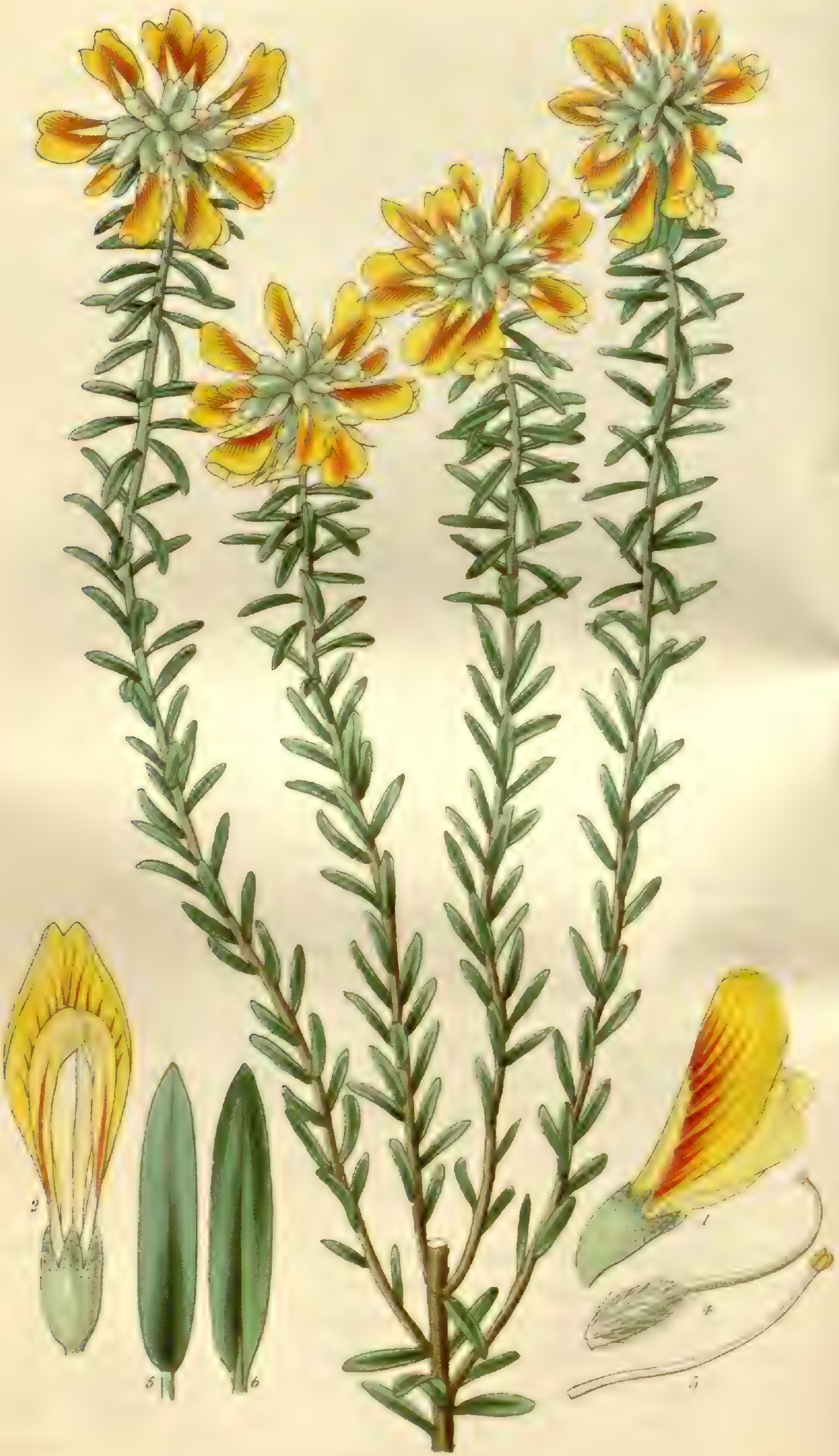
There is a variety of E. *nivalis* cultivated by Mr. Cunningham, and obtained from Mr. Low, under the name of E. *variabilis*, in which the buds are suberect, the peduncle as long as the calyx, the tube of the corolla three times longer than this, twice as long as the leaves, and the sides grooved nearly along their whole length, the throat being slightly contracted; in all of which there is a departure from what has been considered the type of E. *nivalis*, and the flowers are larger than in this, the plant is more robust, slightly different in habit, and is rather less easily propagated by cuttings.

Epacris *ceræflora* is a much smaller plant than either of the others, the wood is much more slender, the leaves more crowded, and the flowers little more than half the size of their's. *Graham.*

E. *impressa*; foliis lanceolatis patentissimis nudiusculis infra nervosis apice attenuatis mucronatis marginibus scabris, petiolis brevissimis, floribus pendulis axillaribus solitariis in pseudo-spicis congestis, corollæ tubis prismaticis calyce acuto ciliato multo longioribus. *Graham.*

Fig. 1. Flower. 2. Pistil: *magnified.*

3254.



W J H del.

Pub by S. Curtis Glazenwood Essex, July 1.1833.

Swan Sc.

PULTENÆA SUBUMBELLATA. SUBUMBELLATE PULTENÆA.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Cal. 5-fidus, lobis subæqualibus in labia dua dispositis; basi bibracteolatus, bracteolis interdum tubo adnatis. *Ovarium* sessile, dispermum. *Stylus* subulatus, adscendens. *Stigma* simplex. *Strophiola* seminis lobis posticis incisis. —Frutices *Australasici.* Folia *simplicia, alterna.* Stipulæ *sæpe concretæ, intrafoliaceæ.* Flores *flavi, sæpius in capitula terminalia congesti. D C.*

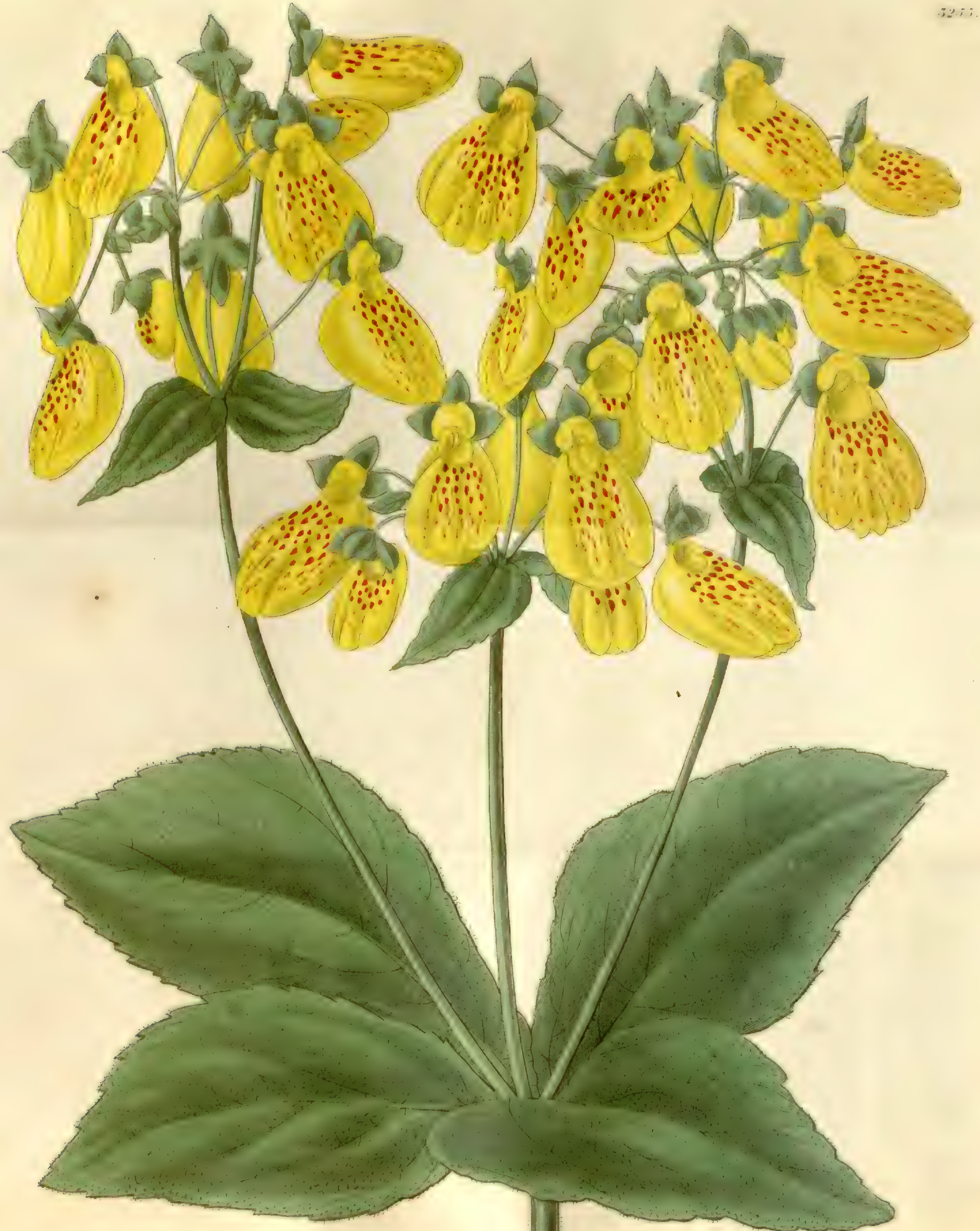
Specific Name and Character.

PULTENÆA *subumbellata;* foliis sparsis lineari-oblongis obtusiusculis glabris, floribus terminalibus umbellato-capitatis, calycibus hirsutis.

DESCR. A low *shrub,* with nearly erect, wavy branches, of which the younger ones are clothed with patent hairs. *Leaves* about half an inch long, linear-oblong, upon an excessively short, downy petiole, glabrous, with a very obscure midrib, rather obtuse at the point, the lower ones on the branches generally nearly erect and somewhat imbricated, the upper ones patent, and sometimes almost reflexed. *Flowers* collected into a somewhat umbellate head, and standing out horizontally, so that on looking down upon the flowers you see nothing but the standards. *Calyx* very hairy, in two lips, the upper with two, the lower with three obtuse teeth. *Vexillum* obovate, attenuated at the base, almost keeled on the back, bright orange, with a pale, oblong spot on the back at the base, surrounded with a deep purple-black ring. *Alæ* yellow, oblong, concave, with a red line. *Carina* pale. *Stamens* ten: *Filaments* free: *Anthers* rounded, orange-coloured. *Germen* ovate, very silky: *Style* long, filiform, curved upwards: *Stigma* capitate.

For the possession of this highly ornamental greenhouse plant, the Glasgow Botanic Garden is indebted to Dr. Scott, who sent seeds from Van Diemen's Land, from which plants were raised that blossomed in April, 1833. The flowers are very bright coloured, and the variegated vexillum or standard is singularly exposed, so that its colours may be seen to the best advantage, and almost every branch bears a head of them.

Fig. 1. Side view of a Flower. 2. Under-side of ditto. 3. Stamen. 4. Pistil. 5. Upper side of a Leaf, and, 6, Under side of ditto.



Mr. J. McNab delt.   Pub. by S. Curtis Glazenwood Essex.   Augt. 1 1833

CALCEOLARIA CRENATIFLORA. CRENATE-FLOWERED SLIPPERWORT.

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—SCROPHULARINÆ.)

Generic Character.

Cal. 4-partitus. *Cor.* bilabiata: labium inferius calceiforme, inflatum. *Caps.* semibivalvis, valvulis bifidis.

Specific Character and Synonyms.

CALCEOLARIA *crenatiflora;* herbacea, foliis ovatis sublobatis dentatis inferioribus præcipue petiolatis utrinque cauleque pubescentibus subobliquis, floribus corymbosis labio superiore minimo inferiore amplo maculato crenato laciniis calycinis late ovatis nervosis.

CALCEOLARIA crenatiflora. *Cavan. Ic. Pl. v.* 5. *p.* 28. *t.* 446. *Spreng. Syst. Veget. v.* 1. *p.* 44. *Grah. in Edin. Phil. Journ. June,* 1833.

CALCEOLARIA anomala. *Pers. Syn. Pl. v.* 1. *p.* 16.

CALCEOLARIA pendula. *Sweet, Brit. Fl. Gard. t.* 155.

DESCR. Herbaceous. *Stem* (a foot and a half high) erect, purple towards the base, abundantly covered with soft, spreading hairs, some of which are long and acute, a greater number half as long, and glandular. *Lower leaves* ovate, petioled (with a petiole seven inches long, three and a half broad) decurrent along the petioles, slightly undulate, sublobate, dentate, suboblique, rugose, pubescent on both sides, dark green above, much paler below, and there purple towards the tip. *Stem-leaves* ovate, subacute, on much shorter petioles, smaller and more sessile upwards. *Flowers* corymbose, primary division in two or three branches, branches dichotomous with two flowers in the cleft. *Peduncles* (an inch and a half long) as well as the branches having the same pubescence as on the stem. *Calyx-segments* broadly ovate, subacute, spreading, densely covered with both kinds of pubescence on the outside, with the glandular only on the inner, entire, nerved, nerves generally five. *Corolla* with short glandular pubescence over the whole of the outer surface, most conspicuous on the upper lip, glabrous within, except at the insertion of the stamens, where there are a few hairs, yellow, sprinkled with orange-brown spots on the upper part of the lower lip, and on its inner side near the throat, the spots being there larger and round, in the former situation smaller and oblong, while in that part of the lower lip which is inflected in the throat they become streaks. *Upper lip* small, semilunar, compressed upon the calyx, cucullate in the centre; *lower lip* very large, inflated, about a third of its lower surface parallel to the calyx, the remainder at right angles to this, and the upper surface forming an inclined plane from the throat, crenate at its lower part, the number of crenatures varying from three to five, and each frequently emarginate, the inflected portion of the lower lip flat at right angles to its upper surface. *Stamens* erect, subexserted; *filaments* conical, slightly curved downwards, somewhat compressed, and having upon their surface a few erect, short, glandular hairs; *anthers* large, pale yellow, lobes divaricated, equal, deeply furrowed on their outsides; *pollen* cream-coloured. *Pistil* longer than the stamens; *stigma* small, glandular, capitate; *style* glabrous, slightly curved downwards; *germen* glanduloso-pubescent, shape and structure as in the Genus; *placenta* large; *ovules* very numerous.

There is no species of this beautiful Genus which forms so striking an object in the greenhouse as this. How far it will bear cultivation in the open air, we have yet to ascertain. I can see no reason whatever for the specific distinction between CALCEOLARIA *crenatiflora* and C. *pendula* which is attempted to be drawn in the British Flower Garden. The chief distinction stated is the difference of the number of the crenatures in the lower lip, and the flowers being pendulous or suberect. The former character I find to vary continually in the flowers even on the same corymb; and the latter seems to me to depend solely on the degree of unnatural luxuriance produced by cultivation. I have both plants from Mr. LOW, who first raised them from seeds gathered in Chiloe by Mr. ANDERSON, and who furnished the plant figured as CALCEOLARIA *pendula* in the British Flower Garden, and I cannot see a shade of difference between them. The impropriety of unnecessarily changing names is absolutely caricatured by PERSOON, who, knowing the plant only through the bad figure of CAVANILLES, imagined the lower lip to be flat, not inflated, as in the Genus, and therefore rejecting the name of CAVANILLES, descriptive of a form found in, though not peculiar to, the species, he gave a name applicable only to the figure. *Graham.*

Mrs. J. McNab. delt.

Pub by S. Curtis Glazenwood Essex Augt. 1 1833.

SALPIGLOSSIS LINEARIS. LINEAR-LEAVED SALPIGLOSSIS.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—SOLANEÆ.)

Generic Character.

Cal. 5-fidus seu 5-partitus, subinæqualis. *Cor.* infundibuliformis, 5-loba. *Filamentum* quintum sterile (nunc antheriferum). *Stylus* apice dilatatus. *Stigma* truncatum, transversum. *Capsula* bilocularis, dissepimento valvis parallelo. *Semina* punctato-scabra.

Specific Character and Synonyms.

SALPIGLOSSIS *linearis;* erecta glandulosa, ramis patulis, foliis lineari-oblongis sessilibus, corolla subregulari infundibuliformi fauce dilatata calyce duplo longiore. *Grah.*
SALPIGLOSSIS linearis. *Hook. Bot. Mag. sub t.* 3113.
NIEREMBERGIA intermedia. *Graham in Edin. N. Phil. Journ.* 1832.

DESCR. *Plant* herbaceous, perennial, the whole, excepting the inside of the corolla, minutely but densely glanduloso-pubescent. *Stem* (in a young plant about a foot high) erect, much branched, branches spreading, ascending. *Leaves* (an inch and a half long, four lines broad) scattered, numerous, spreading or reflected, oblongo-spathulate, almost veinless, with a distinct midrib behind, somewhat keeled near the base, slightly folded along the middle rib above. *Peduncles* (one inch long) solitary, filiform, from the side of the clefts in the branches. *Calyx* persisting, five-parted, angular; segments spreading, foliaceous, linear, blunt. *Corolla* (nine lines long and nine lines across) funnel-shaped, twice the length of the calyx; *limb* rich purple, especially when first expanded, darker inwards, and still further towards the throat dotted with purple on a yellow ground, *paler* on the outside, nearly regular, five-lobed, lobes emarginate, the upper ones rather shorter and rather more reflected than the lower, throat yellow; dilated, tube inflated, a little more so on the lower than the upper side, clavate, longer than the calyx, nerved. *Stamens* five, included; *filaments* glabrous, ascending, of unequal length, adhering to the tube by their somewhat dilated bases, which are concave in front, the two longest and the shortest attached to the lower side of the tube at its base. *Anthers* short, oblong, *lobes* much divaricated, bent back, and approaching each other below, yellow; *pollen-granules* minute, round, yellow. *Pistil* equal to the shorter stamens. *Stigma* bilabiate, green, *lobes* blunt: *Style* slightly thickened upwards, glabrous; *Germen* ovate, green, glabrous, with a prominent nerve on two sides, bilocular, dissepiment tumid in the middle; *ovules* numerous, subglobular. *Seeds* brown, angled, muricated on the outer edge.

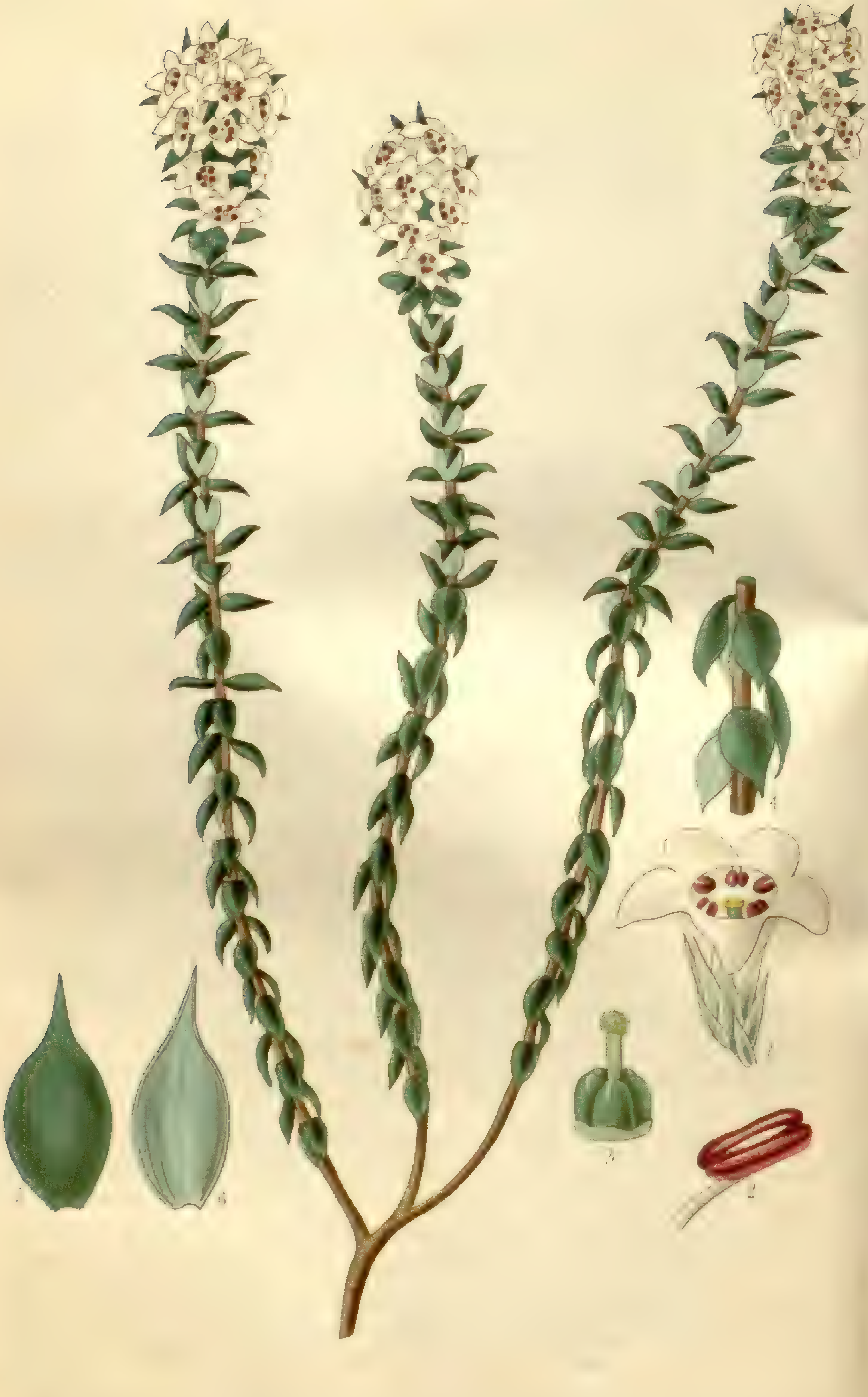
Seeds of this plant, which is exceedingly pretty, and very well deserving of cultivation, were received by Mr. NEILL from Mr. TWEEDIE at Buenos Ayres in 1832, and the first specimen brought into flower in the stove at Canonmills in the end of September. It seemed to be about to flower very freely, but probably, on account of the season, all the buds dropped off excepting one, which perfected its blossoms and seeds. In April it flowered much more freely. It strikes very readily by cuttings, and will probably thrive well in a dry, light greenhouse.

A better example than this plant cannot be wished by Mr. DAVID DON, in confirmation of his opinion expressed in the Edinburgh New Philosophical Journal, July, 1832, and in SWEET's British Flower Garden, t. 172, of the generic identity of NIEREMBERGIA and PETUNIA.

The habit of this plant is wholly that of NIEREMBERGIA, the flower in shape and structure precisely that of SALPIGLOSSIS *integrifolia* of HOOKER, NIEREMBERGIA *phœnicea* of DON. *Graham.*

Even should this interesting plant, and my S. *integrifolia* prove not to be genuine species of SALPIGLOSSIS (with which however they accord better than with any other established Genus,) I can by no means consent to their being united with NIEREMBERGIA, the form of whose corolla is most remarkable. The stamens in our two plants are manifestly unequal; there are four didynamous ones, and a fifth smaller than the rest, but antheriferous. *H.*

Fig. 1. Flower. 2. Base of the Flower laid open to show the Stamens. 3. Pistil.—*Magnified.*



W.J.H. del.

Pub. by S. Curtis Glazenwood Essex Aug. 1 1833

Swan Sc.

EPACRIS HETERONEMA. VARYING-STEMMED EPACRIS.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—EPACRIDEÆ.)

Generic Character.

Calyx coloratus, multibracteatus, bracteis textura calycis! *Corolla* tubulosa, limbo imberbi. *Stamina* epipetala: *Antheris* supra medium peltatis. *Squamulæ* 5 hypogynæ. *Capsula* placentis columnæ centrali adnatis.—Fruticuli *ramosi, sæpius glabri.* Folia *sparsa, petiolata v. basi simplici.* Flores *axillares, in spicam foliatam sæpius digesti, albi v. purpurascentes. Br.*

Specific Character and Synonyms.

EPACRIS *heteronema;* foliis elliptico-lanceolatis acuminatis concaviusculis subtus striatis, calycibus acutissimis nudis longitudine tubi, staminibus inclusis, stylo glabro, ramulis hirsutis. *Br.*

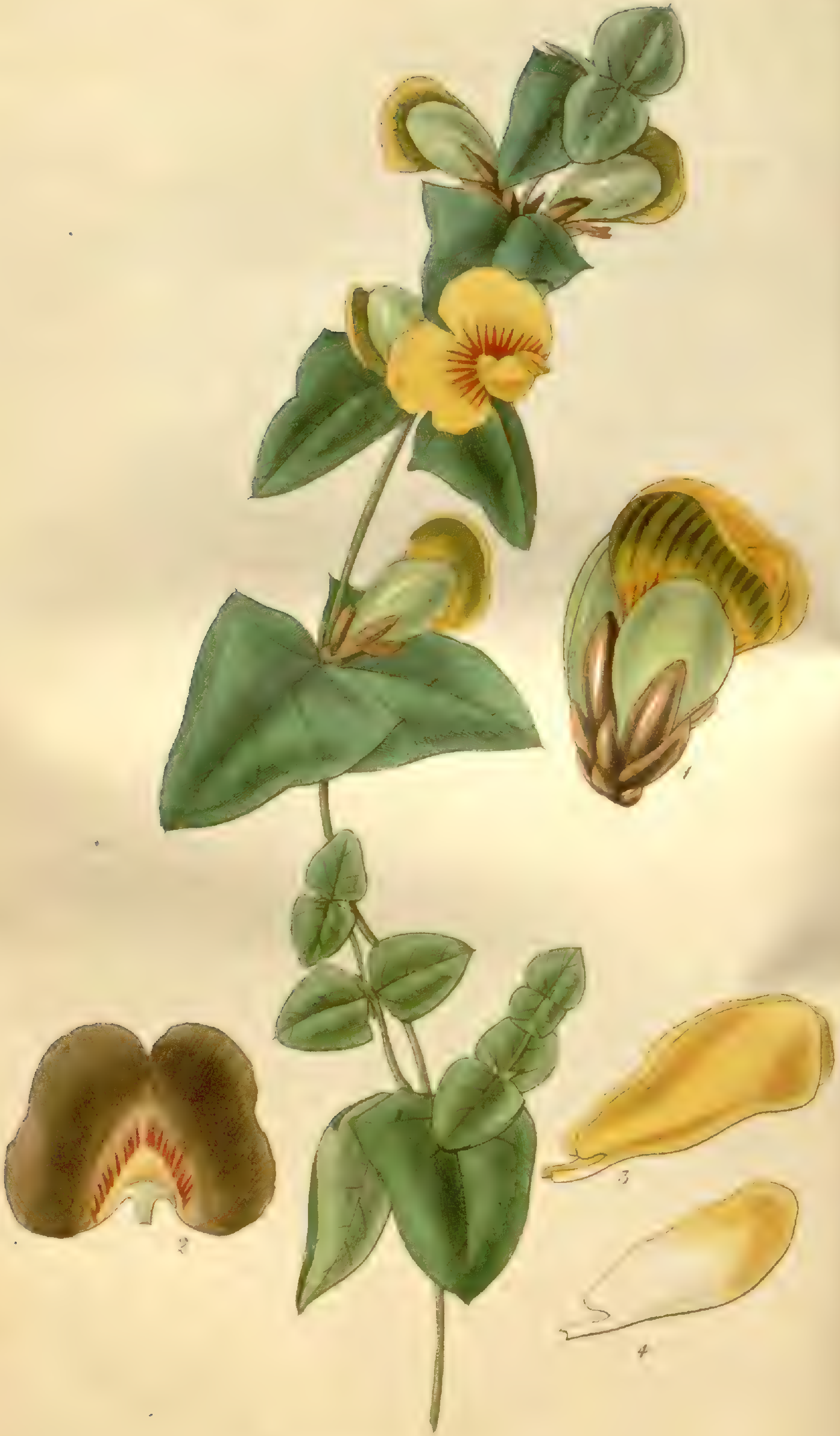
EPACRIS heteronema. *Labill. Nov. Holl. v.* 1. *p.* 42. *t.* 56. *Br. Prodr. Fl. Nov. Holl. p.* 531.

DESCR. A *shrub,* with numerous wavy *branches,* which are more or less elongated, bare of foliage below, clothed upwards with numerous opposite and decussate *leaves,* which are horizontally patent above, below closely reflexed, all of them elliptical or approaching to lanceolate, sharply acuminated and pungent, thick and coriaceous, slightly concave and dark green above, without any striæ, beneath pale-coloured, convex, marked with three dorsal and one marginal stria on each side. *Flowers* moderately large, in more or less elongated and slightly leafy, terminal *spikes.*

Bracteas and *calyx-leaves* whitish, membranaceous, lanceolate and acuminate. *Corolla* pure white, the tube about as long as the five-cleft *limb*. *Stamens* situated at the mouth of the corolla, and inclined over it. *Filament* very short. *Anther* oblong, deep purplish red. *Pollen* yellow. *Germen* subglobose, five-lobed, surrounded by an annular lobed disk. *Style* short. *Stigma* globose, downy, yellow.

This pretty species of EPACRIS was discovered by LABILLARDIERE in Van Dieman's Land, where Mr. BROWN also gathered it. But it is not confined to that country. Our friend Mr. ALLAN CUNNINGHAM found it in moist, rocky situations in the Blue Mountains of New Holland, whence he introduced it to the Royal Gardens at Kew in 1823. It flowers in the month of May, and was obligingly communicated by W. T. AITON, Esq.

Fig. 1. Flower. 2. Stamen. 3. Pistil and glandular Ring. 4. Portion of the Stem and Leaves. 5, 6. Front and back view of a Leaf:—More or less *magnified*.



W. J. H. del.

Pub by S. Curtis Glazenwood Essex Aug. 1 1833

Swan Sc.

PLATYLOBIUM OBTUSANGULUM. OBTUSE-LEAVED FLAT-PEA.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx bracteatus, bilabiatus: labio superiore bifido rotundato maximo. *Stamina* omnia connexa. *Legumen* pedicellatum, compresso-planum, dorso alatum, polyspermum. *Br.*

Specific Name and Character.

PLATYLOBIUM *obtusangulum;* foliis deltoideis angulis obtusiusculis cum mucrone, pedunculis brevissimis (calyceque ad basin) bracteatis.

DESCR. *Stems* weak, filiform, irregularly branched and proliferous from the axils of the leaves, trailing upon the ground if not supported by a stick, greenish, slightly downy. *Leaves* opposite, rather remote, deltoid, subcoriaceous, the angles rather obtuse, but each tipped with a point: the younger ones almost cordate, without angles, of a pale yellow-green colour. *Flowers* large, in pairs from the axils of the leaves, upon peduncles so short that they may almost be deemed sessile, and these so covered with three or four brown, concave bracteas, as entirely to conceal them: two other larger and opposite bracteas appear at the base of the calyx. *Upper lip* of the calyx exceedingly large; the two lobes opposite, appressed: *lower lip* small and three-toothed. *Standard* very broad, somewhat reniform, with a deep notch at the top, within of a bright orange colour with a red ray in the centre: outside orange-

red, with a broad grey-brown cloud at the margin: *wings* deep orange-red at the base above. *Keel* of two very obtuse whitish petals, deep orange towards the extremity.

For the possession of this beautiful plant, the Glasgow Botanic Garden is indebted to Dr. SCOTT, who sent the seeds from Van Dieman's Land. These have flourished and the plants have been treated as hardy inmates of the greenhouse, where they blossom in May. The species may possibly be only a variety of the P. *triangulare* of BROWN, as given in the Botanical Magazine by Mr. GAWLER, at t. 1568. But this has a much more straggling habit, and longer branches, frequently throwing out new shoots from the axils of the leaves, the old leaves have much more obtuse angles, and the young ones are not angular at all:—the flowers are considerably larger and the lobes of the calyx particularly so. In one respect, indeed, neither the present plant, nor that of Mr. SIMS, coincides with P. *triangulare;* and that is in the exceedingly short peduncles, which are *entirely* covered with bracteas; whereas it is stated in the Hortus Kewensis by Mr. BROWN, "pedunculis basi apiceque bracteatis, medio nudis."

Fig. 1. A Flower and Flower-bud. 2. Back view of the Vexillum. 3. The Alæ. 4. The Carina:—*magnified.*

3259.

W J H delt

Pub by S Curtis Glazenwood Essex Aug 1 1833

PLATYLOBIUM MURRAYANUM. MR. MURRAY'S PLATYLOBIUM.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx bracteatus, bilabiatus: labio superiore bifido rotundato maximo. *Stamina* omnia connexa. *Legumen* pedicellatum, compresso-planum, dorso alatum, polyspermum. *Br.*

Specific Name and Character.

PLATYLOBIUM *Murrayanum;* caule ramosissimo, ramis erectiusculis flexuosis rigidis, foliis deltoideis acute mucronatis, pedunculis filiformibus folio longioribus basi apiceque solummodo bracteatis.

DESCR. This plant forms a rather dense bush, about a foot high, dividing from the base into numerous suberect, flexuose *branches,* bearing other lateral, rather short and patent ones, all of them filiform, somewhat rigid or wiry, and rather woody. *Leaves* opposite, almost exactly deltoid, sometimes slightly acuminated, the angles acute and mucronate. From beneath the axils of these leaves, consequently in pairs, arises the peduncle, which is filiform, longer than the leaf itself, more or less curved, having at the base about six small, distichous bracteas, and at the extremity, or immediately at the base of the calyx, two minute brown bracteas. *Calyx* considerably smaller than in P. *obtusangulum,* but the same in form. The *corolla* likewise is similar, only smaller in all its parts. *Young fruit* considerably longer than the calyx, linear, sickle-shaped, stipitate, margined; the upper margin the broadest, both hairy, terminated by the rather short style: about six-seeded.

This plant likewise, as well as the P. *obtusangulum*, was received from Dr. Scott, from Van Dieman's Land, at the Glasgow Botanic Garden, and Mr. Murray, the able and zealous Curator of that establishment, at once recognized it as a species quite distinct both from the subject of the preceding plate and from the P. *triangulare* of Dr. Sims; and I am desirous that it should bear his name. It bears a great number of flowers, which expand their vivid petals during the day, closing as the evening approaches.

Fig. 1. Flower and Peduncle. 2. Calyx, seen in front. 3. Alæ. 4. Carina. 5. Young Legume:—*magnified.*

3260.

W. J. H. delᵗ.

Pub by S. Curtis, Glazenwood Essex Aug. 1 1833.

EUCALYPTUS AMYGDALINA. ALMOND-LEAVED EUCALYPTUS.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—MYRTACEÆ.)

Generic Character.

Calycis tubus persistens, obovatus aut globosus, cupulæformis, limbus operculæformis, integer, basi circumscissa et regulariter dehiscens, deciduus. *Pet.* 0. *Stam. filamenta* numerosa, libera. *Capsula* 4-locularis, aut abortu trilocularis, apice dehiscens, polysperma.—Arbores *(Novæ Hollandiæ) excelsæ.* Folia *integerrima, coriacea, sæpius alterna, rarius opposita, interdum in iisdem individuis varia, paucis, exceptis glaberrima.* Pedunculi *axillares, breves, umbellam 3—5-floram gerentes.* Operculum *in nonnullis, ex cl.* Brown, *exterius calycinum, interius corollinum. D C.*

Specific Character and Synonyms.

EUCALYPTUS *amygdalina;* operculo hemisphærico submutico cupula breviore, pedunculis axillaribus et lateralibus teretiusculis petioli longitudine, umbellis 6—8-floris subcapitatis, foliis lineari-lanceolatis basi attenuatis apice acuminato-mucronatis. *De Cand.*

EUCALYPTUS amygdalina. *Labill. Nov. Holl.* 2. 14. *t.* 154. *Spreng. Syst. Veget. v.* 2. *p.* 501. *De Cand. Prodr.* 3. 219. *Graham, in Edin. Phil. Journ. June,* 1833.

METROSIDEROS salicifolia. *Gærtner, Fruct. et. Sem.* 1. 171. *t.* 34. *fig.* 3 ?

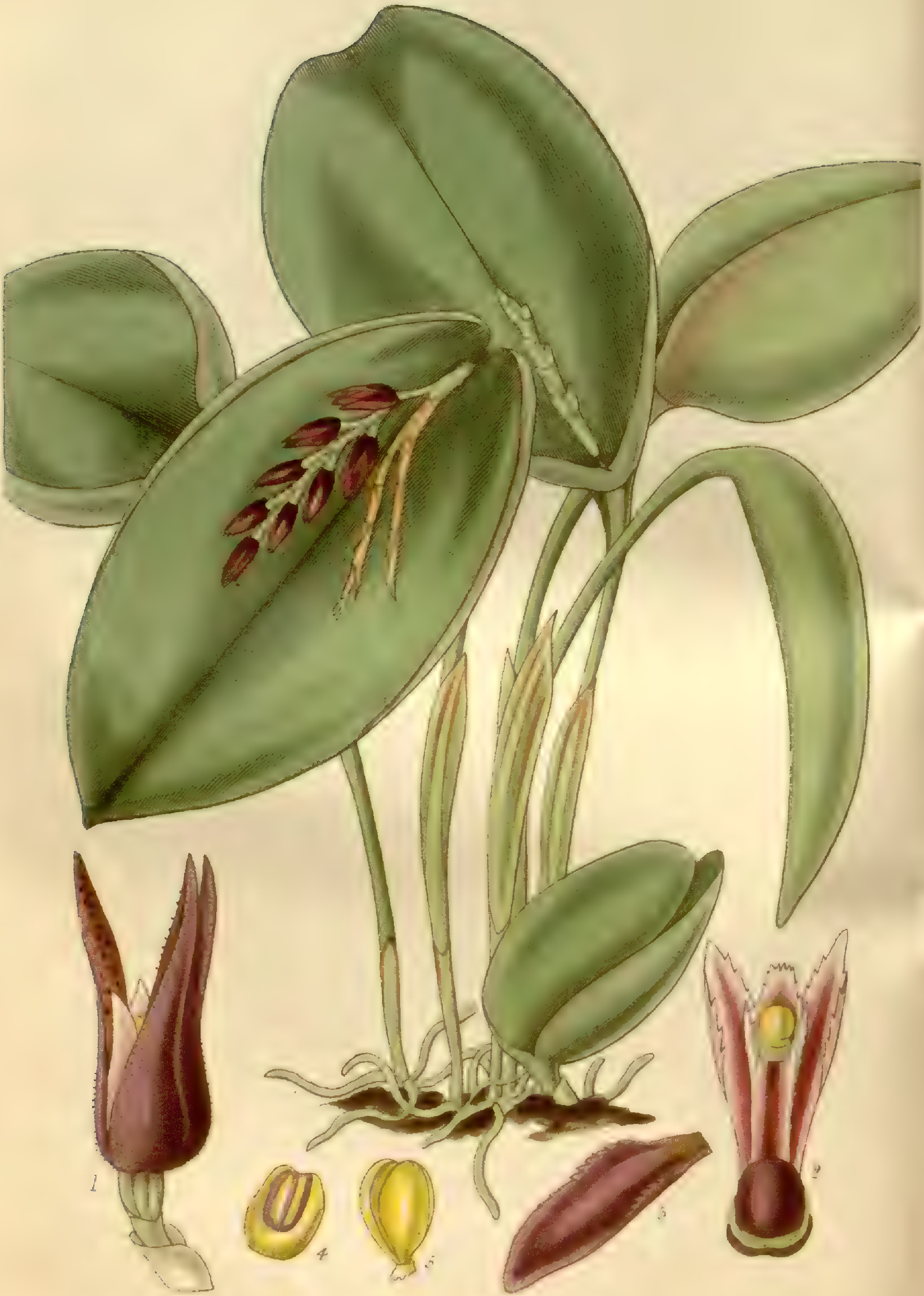
DESCR. With us a rather slender *shrub. Branches* pendulous. *Leaves* (three to four inches long) petiolate, linear-lanceolate, acuminato-mucronate, sometimes falcate

or subsessile, ovato-elliptical and mucronate; glaucous, especially when young; distantly sprinkled with minute, transparent dots: middle rib strong, veins and marginal callosity scarcely visible till dry. *Flowers* in axillary five- to eight- (or more) flowered corymbs; *peduncles* scarcely longer than the petiole, stouter than it, nearly round, or obscurely furrowed; *pedicels* resembling the peduncle, and not much more slender. *Calyx*, including the cohering segments of its limb *(operculum)*, scarcely so long as the pedicel; *operculum* hemispherical, minutely pointed, shorter than the tube *(cupula)*. *Stamens* numerous, white, longer than the cupula. *Style* longer than the cupula, but shorter than the stamens.

This species, a native of Van Dieman's Land, flowered at the Botanic Garden in the beginning of this month, when trained against the wall. We have not yet ascertained whether, like the EUCALYPTUS *pulverulenta*, it will thrive without this protection. *Graham.*

Fig. 1. Flower with its Operculum. 2. Flower, from which the Operculum has fallen. 3. A Flower, from which the Stamens are removed: *magnified.*

3261.



W. J. H. del.

Pub. by S. Curtis Glazenwood Essex. August 1. 1833.

Swan sc.

PLEUROTHALLIS PROLIFERA. PROLIFEROUS PLEUROTHALLIS.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala conniventia, subæqualia, lateralibus vel omnibus connatis. *Petala* minora. *Labellum* liberum, cum columna subparallelum, integerrimum, petalis difforme. *Columna* elongata, aptera, libera, cum ovario continua. *Anthera* apice membranacea. *Pollinia* 2, nunc materia pulveria ad apicem cohærentia.—Herbæ *epiphytæ, rhizomate repente filiformi.* Caules *filiformes, monophylli, sæpius vaginati.* Flores *axillares, solitarii, v. fasciculati v. racemosi, herbacei vel fusci. Lindl.*

Specific Character and Synonyms.

PLEUROTHALLIS *prolifera;* caulibus ancipitibus, folio oblongo cochleato carnoso prolifero racemo duplo longiore, bracteis cuneatis cuspidatis cucullatis pedicello brevioribus, sepalis conniventibus lateralibus semiconnatis, petalis labelloque conformibus duplo longioribus, clinandrio dentato. *Lindl.*

PLEUROTHALLIS prolifera. *Herbert, MSS. Lindl. Bot. Reg. t.* 1298. *Ejusd. Gen. et Sp. Orchid. Part I. p.* 6.

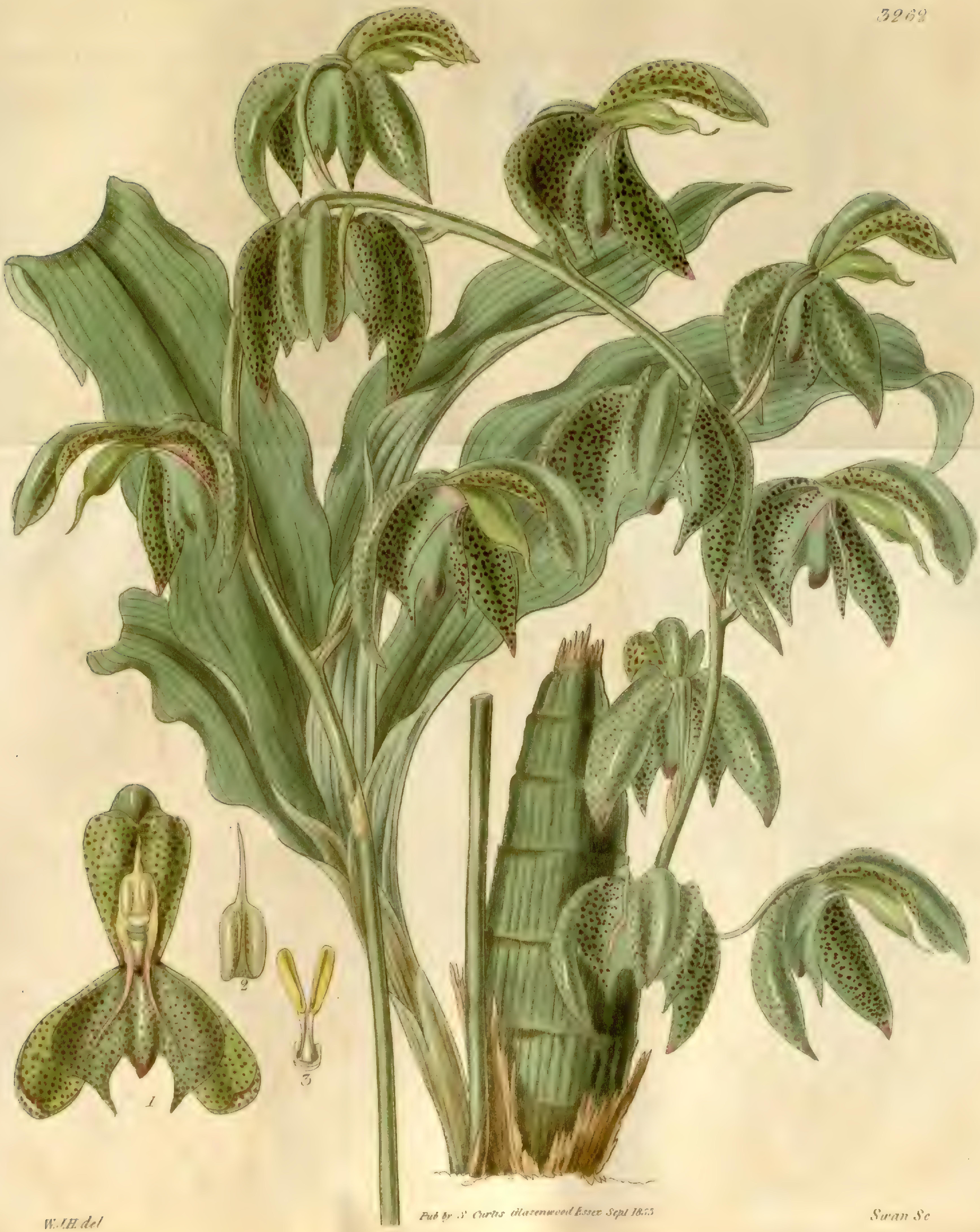
DESCR. A parasite, with simple, compressed stems, four to five inches high, partly clothed with two or three large sheathing, membranous, striated scales, throwing out a few flexuose, simple, whitish, fleshy fibres from the base, and bearing a single leaf at the extremity, three to four inches in length, of an ovate form and acute, between boat-shaped

and cucullate, remarkably thick and fleshy. In the hollow of this, and from near the sinus at the base, the distichous *raceme* of *flowers* is produced, arising from a little membranous sheath, and closely appressed to the surface of the leaf. *Bracteas* membranaceous, circumvolute, shorter than the small pedicel. *Flowers* nearly erect. *Leaflets* or sepals of the calyx also erect, lanceolate, the two lateral, or inferior ones, combined for half their length and gibbous, deep blackish-purple, minutely papillose, within more inclining to red, or marked with minute, dark-coloured tubercles. *Petals* erect, spathulate, half the length of the sepals, of a deep rose colour, pale at the margin, toothed upwards. *Lip* erect, oblongo-lanceolate, dark purple-brown, minutely hispid at the point, with two small, incurved lobes near the base, which are ciliato-serrated. *Column* a little shorter than the petals, erect, slightly winged and serrated above, terminating in a membranous appendage (the *clinandrium*) within which the hemisphærical yellow *anther* is situated. *Pollen-masses* two, obovate. *Germen* very short, jointed on the pedicel.

Our collections are indebted for the possession of this very remarkable orchideous plant, to the Hon. and Rev. William Herbert, who received it from shady rocks at Boto Fogo, near Rio Janeiro. It flowers in June, and requires the same treatment as the other tropical parasites of the same family. In general structure the present species bears a great similarity with the P. *saurocephalus,* (Bot. Mag. t. 3030) which inhabits the same country.

Tab. 1. Flower. 2. Flower, from which the sepals and lip are removed. 3. Lip. 4. Anther-case. 5. Pollen-masses :—*magnified.*

3262



W.J.H. del

Pub by S. Curtis Glazenwood Essex Sept 1833

Swan Sc

(3262)

CATASETUM TRIFIDUM. TRIFID-LIPPED CATASETUM.

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium rectum sæpius globosum. *Labellum* saccatum concavum (raro explanatum), sepalis difforme. *Columna* aptera bicirrhosa. *Anthera* cornuta bilocularis. *Pollinia* postice biloba, in filo maximo denudato transverso, demum elastice contractili, inserta. *Lindl.*

Specific Name and Character.

CATASETUM * *trifidum:* floribus maculatis, petalis duobus cum sepalo superiore conniventibus, labello patentissimo plano trifido segmentis lateralibus acuminatis intermedio crasso obtuso breviore.

DESCR. Our plant consisted of a former year's leafless, oblong, jointed, and striated bulb, or bulb-like *stem,* from the side of which arises a young shoot, with a scarcely bulbiform *stem,* sheathed with two or three scales, and bearing four to five elliptico-lanceolate, waved, acuminated, striated, and acuminated *leaves,* bright but pale green above, paler and somewhat glaucous beneath. *Scape,* from the base of the stem, nearly a foot and a half high. *Flowers* in a lax, drooping *spike,* large, of lurid green colour, tinged, and copiously spotted with purple. *Bracteas* rather small,

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* From κατα, *downwards,* and *seta,* a bristle, from the bristle-shaped appendages to the column which point downwards.

green, half embracing the base of the club-shaped germen. *Calyx-leaves* or *sepals* three, broadly lanceolate, spreading, but also incurved, concave, the superior one the narrowest; and with this the two oblong lanceolate petals are connivent. *Labellum* very patent, lying close within the lower sepals, shorter than they, plane, or with the sides slightly deflexed, glossy, and of a rather darker green, and more deeply spotted than the rest of the flowers, deeply trifid at the extremity; the two lateral segments considerably acuminated; the intermediate one shorter, thickened, and purple. *Column* porrected, rather short and semicylindrical, with a slender, acuminated, subulate point, bearing in front two long, acuminated filaments, diverging beyond the middle and lying close upon the labellum. *Anther-case* oval, with a subulate point corresponding with that of the column.

For this beautiful and most interesting species of CATASETUM, the Glasgow Botanic Garden is indebted to Mr. LOCKHART, who sent the living plant from Trinidad. It produced its large spike of flowers in the month of May. Professor LINDLEY has already figured a species of the Genus, (C. *cristatum,* Bot. Reg. t. 966.) which differed from all the then known species of CATASETUM in the spreading character of the labellum, and in the manner in which the sepals are expanded; but in every other respect, in its habit, foliage, inflorescence, and especially in the structure of its column, it entirely agreed with CATASETUM. The same remarks may, with equal propriety, be applied to the present individual, which is moreover, as a species, totally distinct from C. *cristatum.*

Fig. 1. Front view of an entire Flower. 2. Anther-Case. 3. Pollen-mass.

3265

W. J. H. delt   Pub by S. Curtis Glazenwood Essex Septr 1 1833.   Swan Sc.

ASTRAGALUS PROCUMBENS. PROCUMBENT MILK-VETCH.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx 5-dentatus. *Corolla* carina obtusa. *Stamina* diadelpha. *Legumen* biloculare aut semibiloculare, sutura inferiore introflexa.

Specific Character and Synonym.

ASTRAGALUS *procumbens;* ubique hirsuto-tomentosus, caule prostrato ramoso, stipulis concretis liberis, foliolis 11—14-jugis ellipticis retusis, pedunculis folio longioribus, capitulis racemosis, alis carina multo brevioribus, leguminibus (immaturis) linearibus hirsutis reflexis.

ASTRAGALUS procumbens. *Hook. et Arn. in Bot. of Beech. Voy. v.* 1. *p.* 18. *et in Bot. Misc. v.* 2. *p.* 186.

DESCR. *Root* descending, perennial. *Stems* procumbent, in the cultivated specimen short, in our native ones a foot and a half or more long, procumbent, more or less branched ; the branches terete, clothed with dense, white down. *Leaves* three to four inches long, pinnated with nearly opposite elliptical *leaflets,* which in the specimens before me are likewise clothed with very copious and compact, white, woolly down, except the lower leaves which, have the leaflets broader and almost glabrous. *Stipules* free from, or not adnate with the petiole, but meeting on the opposite side of the stem, where the edges are connate, membranous, reddish. *Peduncles* terminal and axillary, solitary, longer than the leaves, bearing a dense, oval, or oblong raceme of flowers. *Calyx* with five rather unequal teeth, and clothed with short, but shaggy, blackish hairs. *Vexillum* broad and roundish, clawed, yellowish in the centre, the rest bright-bluish purple, but not a deep purple, with deeper oblique lines. *Alæ* short, pale yellow, oblongo-obovate; *Carina* obtuse, yellowish below, the rest dingy purple. *Anthers* orange-coloured. *Germen* oblong, very hairy: *Style* curved upwards, slender.

Communicated from the Birmingham Botanic Garden by Mr. Cameron, who raised the plants from Chilian seeds. It is found in the plains at Conception, Valparaiso, and Coquimbo, and will probably always require the protection of a greenhouse, or of a frame. Its flowering season is May.

In the Botanical Miscellany, Mr. Arnott and myself have had occasion to notice the variable character of this plant. We there considered that state as α, which is clothed with soft and silky hairs: β, with the leaves somewhat glabrous above: γ, with the stem and leaves glabrous; and δ with the leaflets linear. The present may almost be considered a fifth variety, having more copiously and compactly woolly leaves and stems than any of the others.

Judging from the very young state of the fruit, I am inclined to think this plant would be more correctly referred to Phaca.

Fig. 1. Flower. 2. Pistil. 3. Section of the Ovary: *magnified.*

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Pub by S. Curtis Glazenwood Essex Sept 1 1833

Swan Sc.

DRACOPHYLLUM SECUNDUM. SECUND-FLOWERED DRACOPHYLLUM.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—EPACRIDEÆ.)

Generic Character.

Calyx bi- vel ebracteatus. *Corolla* tubulosa, limbo 5-partito, patenti, imberbi. *Stamina* epipetala v. hypogyna. *Squamulæ* 5, hypogynæ. *Capsula* placentis ab apice columnæ centralis pendulis, solutis.—Frutices *v.* Arbusculæ, *ramis dum denudatis annulatis.* Folia *imbricata, basi cucullatis semivaginantibus.* Spicæ *vel* racemi *terminales: illi simplices, hi quandoque compositi. Br.*

Specific Character and Synonyms.

DRACOPHYLLUM* *secundum;* racemo secundo, pedunculis infimis divisis, corollæ tubo subventricoso fauce vix coarctata limbo obtusiusculo, calycibus ebracteatis, staminibus hypogynis. *Br.*

DRACOPHYLLUM secundum. *Br. Prodr. Fl. Nov. Holl. p.* 556. *Guillem. Ic. Pl. Austr. Rar. p.* 1. *t.* 1. *Schultes Syst. Veget. v.* 4. *p.* 385.

PRIONOTES secunda. *Spreng. Syst. Veget. v.* 1. *p.* 631.

EPACRIS secunda. *Poir. Enc. Meth. Suppl. v.* 2. *p.* 556.

DESCR. A singular-looking shrub, with a good deal the habit of some monocotyledonous plants. The *stem* is branched, and clothed (except in the lower part, which is

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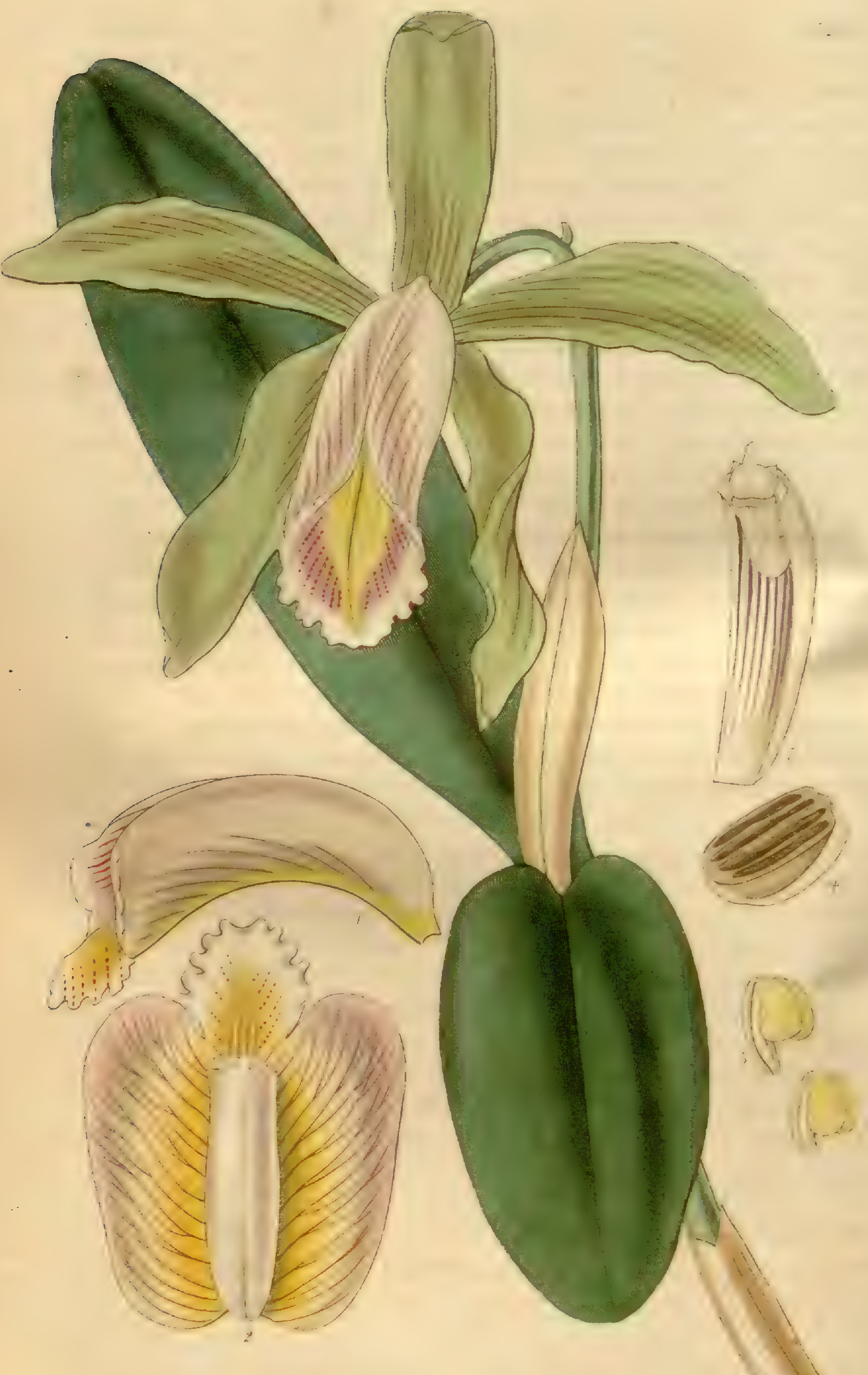
* *Draco, (Dracæna draco),* and φυλλον, a *leaf,* from the general resemblance in the form of the leaves to those of the Dragon Tree.

marked with scars) with the sheathing bases of the foliage. The *leaves* themselves are two to four inches long, linear-subulate, rather harsh, scattered, reflexed, grooved above, of a glaucous-green, striated, quite entire. The branches are terminated with a long and compound, more or less dense raceme. *Flowers* secund, moderately large. *Calyx* of five deep, lanceolate, acuminate, appressed, reddish segments, almost of five leaves. *Corolla* in our specimen almost cylindrical, a little ventricose, slightly contracted above the middle, and there having a dusky band: the rest of the corolla is pure white: the mouth is slightly contracted: the limb of five short, spreading teeth or segments. *Stamens* hypogynous, much shorter than the tube: *anthers* oblong, red-orange. *Hypogynous glands* five, alternating with the filaments, nearly square, dark green. *Ovary* roundish. *Style* rather shorter than the stamens. *Stigma* simple.

This is a rare and highly interesting suffruticose plant of the Natural Order EPACRIDEÆ, communicated by Mr. AITON, from the Royal Gardens at Kew, where it was first raised in this country from seeds transmitted by Mr. ALLAN CUNNINGHAM in 1823, and gathered near Port Jackson. The specimen was accompanied by the following observations from Mr. CUNNINGHAM himself. "It is found in shaded ravines, and such humid situations as Ferns delight in. In its native country, its habit is different from that which it not unfrequently assumes in cultivation: for, growing there, as it always does, on wet sand-stone rocks, almost wholly denuded of soil, its raceme is much fewer flowered, and the plant itself altogether of slenderer growth. Some specimens at Kew exhibit an unnatural luxuriance, the raceme of flowers being much crowded together, and some of these being monstrous, (the effect probably of luxuriant growth,) formed by the union of three or four corollas, and thus presenting a very broad and somewhat flattened tube, with many teeth and an indefinite number of stamens: an appearance which I never witnessed in native specimens. The plant is a very desirable one for cultivation, as it flowers freely with the protection of a greenhouse, and there ripens seeds, by means of which it may readily be increased." *A. Cunningham.*

Fig. 1. Flower. 2. Hypogynous Scales, Stamens, and Pistil: *magnified.*



W.J.H. del.

Pub by S. Curtis Glazenwood Essex Sept 1 1833

CATTLEYA FORBESII. MR. FORBES' CATTLEYA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala membranacea v. carnosa, patentia, æqualia. *Petala* sæpius majora. *Labellum* cucullatum, columnam involvens, trilobum v. indivisum. *Columna* clavata, elongata, semiteres, marginata, cum labello articulata. *Anthera* carnosa, 4-locularis, septorum marginibus membranaceis. *Pollinia* 4, caudiculis totidem replicatis.—Herbæ *epiphytæ, (Americanæ) pseudobulbosæ.* Folia *solitaria, vel bina, coriacea.* Flores *terminales, speciosissimi, sæpe e spatha magna erumpentes. Lindl.*

Specific Character and Synonyms.

CATTLEYA * *Forbesii;* sepalis petalisque subundulatis lineari-lanceolatis subæqualibus, labelli trilobo lobo medio cordato subrotundo-ovato argute dentato undulato apiculato, lateralibus minoribus rotundatis planis, pseudo-bulbis cylindraceis cinereis vestitis, spatha cylindracea membranacea pedunculo breviore. *Lindl.*

CATTLEYA Forbesii. *Lindl. Coll. Bot. t.* 37. in textu. *Bot. Reg. t.* 933. *Gen. et Sp. Orchid. p.* 117.

DESCR. Parasitic. *Stem* six to eight inches tall, slightly swollen, and hence somewhat bulbous, sheathed with long, membranous, cylindrical scales, and bearing at its extre-

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* Named in compliment to WILLIAM CATTLEY, Esq. of London, an eminent cultivator of plants and patron of Botany.

mity two oblong, firm and fleshy, patent *leaves*, from the centre of which, and from within a subcylindrical but carinated and slightly compressed sheath, arises the rounded peduncle, four to five inches long, single-flowered, but jointed and bearing one or two bracteas, as if occasionally two or more-flowered. *Flower* large, handsome. *Sepals* and *petals* spreading, yet incurved, almost exactly similar to each other, of a yellowish-green colour, linear-lanceolate, faintly striated, often with a brownish tint. *Lip* externally whitish, cylindrical from the involuted sides, and much curved, three-lobed at the extremity, the central lobe white and crisped at the margin, yellow, and bearing three to four elevated lines in the centre, lateral lobes obtuse, slightly crenate and reflexed at the extremity. Within, the lip is very beautiful, having a broad, deep yellow, elevated line in the centre, the yellow gradually passing into rose-colour at the margin, and the whole is marked diagonally with forked, deep red, elevated lines, most branched near the margin. *Column* appressed to the labellum, semiterete, whitish, grooved within, and marked with red lines. *Stigma* large, convex, very glutinous. *Anther* sunk into a recess on the top of the column, four-celled, white, the cells dark brown.

A native of Brazil, and introduced to the Gardens of the Horticultural Society at Chiswick, by their Collector, Mr. Forbes. Our specimen, in the two seasons in which it has flowered, (in June 1832 and 1833,) produced only a one-flowered peduncle, whereas Mr. Lindley represents two blossoms on the flower-stalk. But as if to make up for the deficiency, the size of our flower is much greater.

Fig. 1. Lip. 2. Ditto laid open. 3. Column. 4. Anther-Case. 5. 5. Pollen-masses:—*magnified.*

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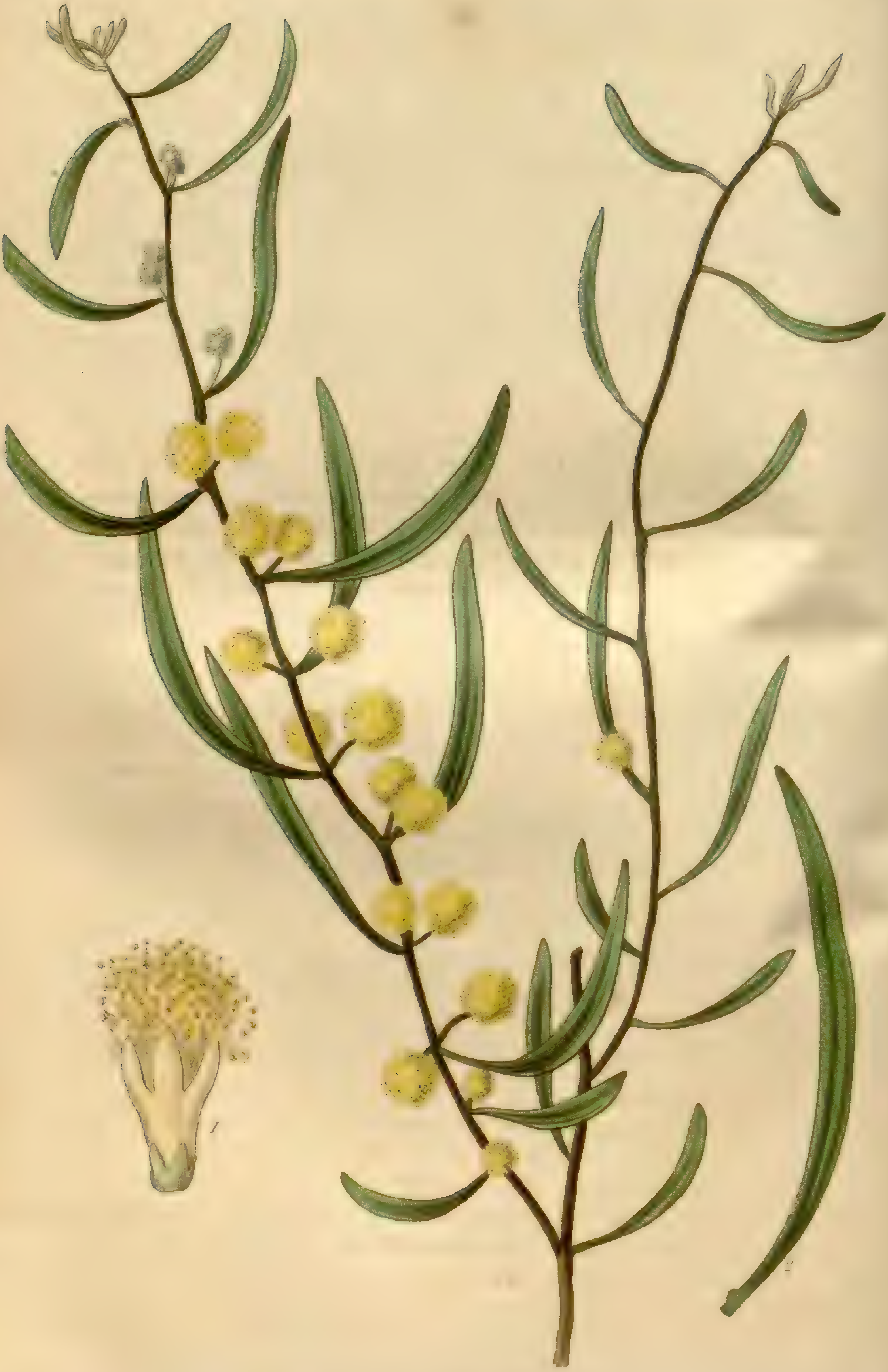

Pub by S. Curtis Glazenwood Essex Sept 1 18[illegible]

ACACIA VERNICIFLUA. VARNISHED ACACIA.

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Class and Order.

POLYGAMIA MONŒCIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Flores polygami. *Cal.* 4—5-dentatus. *Pet.* 4—5, nunc libera, nunc in corollam 4—5-fidam coalita. *Stam.* numero varia, 10—200. *Legumen* continuum, exsuccum, bivalve.—Frutices *aut* arbores, *habitu et foliatione valde variæ.* Spinæ *stipulares sparsæ aut nullæ. De Cand.*

Specific Character and Synonyms.

ACACIA *verniciflua;* phyllodiis lineari-lanceolatis subfalcatis binerviis utrinque glanduloso-punctatis basi attenuatis antice uniglandulosis marginibus crassiusculis scabris, capitulis solitariis subracemosisve axillaribus, pedunculis capitulo plus duplo longioribus, ramulis virgatis viscidis. *A. Cunningham.*

ACACIA verniciflua. *A. Cunningham, in Field's N. S. Wales, p.* 344. (1824.) *Don's Syst. of Gard. v.* 2. *p.* 404. *n.* 27.

ACACIA virgata. *Loddiges Bot. Cab. t.* 1246 (1828.)

DESCR. A slender, twiggy *shrub,* remarkable for a glutinous substance, which clothes not only the young stems, but, although in a less degree, the young foliage also. *Leaves* (or *phyllodia,*) remote, alternate, two inches or two inches and a half long, coriaceous, linear, attenuated at both extremities so as to be somewhat lanceolate, more or less falcate, two-nerved, punctato-glandulose on both sides, slightly thickened at the margin, and having a solitary, conspicuous, sessile *gland* near the base on the upper margin. *Flowers* deep yellow, in globose capitula of a deep

yellow colour, on peduncles which are longer than the heads of flowers, and generally in pairs from the axils of the leaves.

This species of ACACIA was discovered by Mr. ALLAN CUNNINGHAM, during Mr. OXLEY'S Expedition in 1817, in the country around Bathurst, where it flowered throughout the winter. "It also adorns the barren hills near Cox's River at the cool season of the year, and about December produces its ripened pods. With us (at Kew, whence the specimen here figured was sent by Mr. AITON,) it blossoms in the spring along with many others of its kindred, mingled with which it forms an agreeable contrast, by its slender habit, and deep yellow flowers. It was first raised at Kew from seeds sent from the Colony in the year 1823. As a species, its nearest affinity is with A. *dodoneæfolia*, WILLD. and A. *graveolens*, CUNNINGHAM; from both of which, however, it is abundantly distinct." *A. Cunningham.*

Fig. 1. Flower. 2. Leaf:—*magnified.*

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Pub by S. Curtis Glazenwood Essex Sep 1 1833.

Swan Sc.

CEROPEGIA WIGHTII. DR. WIGHT'S CEROPEGIA.

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Class and Order.

PENTANDRIA DIGYNIA.

(Nat. Ord.—ASCLEPIADEÆ.)

Generic Character.

Calyx 5-partitus. *Corolla* basi ventricosa, lobo infundibuliformi, limbi laciniis conniventibus ligulatis. *Corona staminea* duplex (?): *interioris foliola* lobis exterioris opposita. *Antheræ* apice simplices. *Stigma* muticum. *Folliculi* cylindracei læves. *Semina* comosa.—Suffrutices *vel* herbæ *volubiles*. *Wight.*

Specific Character and Synonym.

CEROPEGIA *Wightii*; volubilis glaber, radice bulbosa, foliis ovatis acutis carnosis, corollæ tubo basi inflato-globoso limbi 5-fido laciniis linearibus lanuginosis approximatis, lobis coronæ stamineæ exterioris integris interioribus alternantibus, interioris carnosis lateraliter compressis albidis recurvis exteriori duplo longioribus. *Wight.*

CEROPEGIA Wightii. *Graham MSS.*

DESCR. The whole plant glabrous, twining, fleshy. *Root* bulbous. *Leaves* opposite, ovate, acute, succulent, about an inch long, three or four lines broad, and often nearly as thick. *Umbels* lateral, few-flowered. *Calyx* five-parted, laciniæ acute. *Corolla* about an inch long; tube slender, globular at the base, widening at the border, five-cleft; laciniæ approximated for their whole length, narrow, linear, purple, (or dark green, H.) densely woolly. Organs of *fructification* concealed in the inflated part of the tube, and surrounded by the *Corona*, the exterior lobes of which are ovate, entire, and alternate with the interior; these latter are erect, somewhat fleshy, about twice the length of the exterior series, laterally compressed, white, (stained with deep rose-colour) and from about the middle upwards curved outwards, presenting a star-like appearance. *Anthers* obtuse, naked at the apex, two-celled: *Pollen-masses* erect, attached by the base. *Stigma* blunt. *Wight.*

This very distinct species of CEROPEGIA flowered this summer (1833) in the Edinburgh Botanic Garden, where it had been received from the East Indies, under the name of C. *bulbosa*. It agrees with that species in having a tuberous root, a twining, succulent stem, in the leaves, and in the form of the corolla; but is at once distinguished by the corona, which equally separates it from every other species with which I am acquainted. I would take this opportunity of calling the attention of Botanists to the form of that organ, as affording the most permanent characters for distinguishing allied species in this Genus.—In some, its interior lobes are very long, while the exterior are reduced to a narrow margin, and these appear opposite the interior, as in C. *bulbosa*, *acuminata*, and *tuberosa*, ROXB., and in another East Indian species in my Herbarium.—A second set has the exterior series in five distinct, ovate, entire, or two-cleft lobes, alternate with the interior, the interior ones more than twice their length, and hooked outwards at the point. To this section, belong C. *juncea*, ROXB. C. *Wightii*, perhaps C. *Lunda*, WALL. Pl. Rarior. and two undescribed species in my Herbarium.—In a third set, all the lobes are ligulate, the exterior double the number of the interior, and nearly equalling them in length. To this section belong C. *elegans*, WALL. in Bot. Mag. and two unpublished species in my Herbarium.—A fourth set has the interior lobes long and filiform, the exterior double their number, ovate, obtuse, and scarcely the length of the column of fructification. To this section belong one unpublished species from Nepaul, (C. *Wallichii*) WIGHT in Herb. Royle, and perhaps C. *longifolia*, WALL. Pl. Rar.

In all these, the exterior lobes are at least twice as long as the interior.—In the fifth section, the interior lobes barely exceed the column of fructification, and are about one half longer than the exterior. To this section belong two unpublished species in my Herbarium. These are all that I have had an opportunity of examining with reference to that point.—The species so grouped, often differ very widely in other respects, thereby producing some very unnatural combinations.

In these remarks, I have employed the terms *exterior* and *interior* series of *lobes* of the corona, from supposing that the terms *outer and inner corona* used by Dr. BROWN in his character of the Genus (in the Wern. Trans.) imply the presence of a double series of parts, or two verticils, a structure which does not, I think, exist. The coronal appendage is apparently a campanulate organ, often resembling in form, the limb of the corolla, the ligulate divisions of which represent the interior series of lobes, while the intermediate, ventricose portions represent the exterior. Taking this view of its structure, I infer, that the organ is composed of a single verticil of five leaves, the lamina of which are more or less united, while the costæ are each prolonged into an acumen. The acumen forms the inner lobes, while the lamina more or less developed, form the outer series. If this be correct, it would appear that the corona of CEROPEGIA, and perhaps of the whole Order ASCLEPIADEÆ, is analogous to the antheriferous tribe of MELIACEÆ, and may form a link between these otherwise very distant Orders. *R. Wight.*

Fig. 1. Flower. 2. Staminal Crown. 3. Column of Stamens. 4. Pollen-mass. 5. Calyx and Pistil:—*magnified*.

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W. J. H. del.   Pub. by S. Curtis Glazenwood Essex Sept 1 1833.   Swan Sc.

(3268)

ASTRAGALUS VESICARIUS. BLADDERED MILK-VETCH.

* * *

Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx 5-dentatus. *Corolla* carina obtusa. *Stamina* diadelpha. *Legumen* biloculare aut semibiloculare, sutura inferiore introflexa. *D C.*

SECT. V. Vesicarii; *stipulis nec petiolo nec inter se adnatis, floribus purpurascentibus aut albidis, calycibus vesicariis. D C.*

Specific Character and Synonyms.

ASTRAGALUS[*] *vesicarius;* diffuso-procumbens pube adpressa sericeo-canus, foliolis 5—7-jugis ellipticis, pedunculis folio longioribus, calycibus vesicariis pube nigra adpressa et pilis albidis patulis vestitis, leguminibus hirsutis calyce paulo longioribus. *D C.*

ASTRAGALUS vesicarius. *Linn. Sp. Pl. p.* 1071. *Vill. Delph. t.* 42. *f.* 1. *De Cand. Astragal. n.* 15. *Syst. Veget. v.* 2. *p.* 288. *Spreng. Syst. Veget. v.* 3. *p.* 302.

ASTRAGALUS albidus. *Waldst. et Kit. Pl. Rar. Hung. v.* 1. *t.* 40.

ASTRAGALUS dealbatus. *Pall. Astr. t.* 23. *f.* 1.

ASTRAGALUS glaucus. *Bieb. Fl. Taur. Cauc. n.* 1484.

DESCR. *Root* perennial, descending, and branched. *Stem* much divided, about a span long, hoary as well as the leaves from minute, whitish pubescence. *Leaves* with about five pairs of elliptical, opposite leaflets and a terminal one. *Stipules* small, linear-lanceolate, free at the base of the petiole. *Peduncles* considerably longer than the leaves from the axils of which they arise. *Flowers* collected into a roundish head, which, however, becomes more elongated as the fruit advances to maturity. *Bracteas* minute. *Pedicels* very short. *Calyx* large, inflated, ovato-globose, of a greenish-purple colour, five-toothed, downy with black and white hairs. *Vexillum* oblong, retuse, purple, much bluer in the older flowers, and in the dried specimens becoming deep blue: *Alæ* oblong, on long claws, white with a reddish tinge: *Carina* short, obtuse, with long, straight claws, white, tipped with purple. *Anthers* deep yellow, almost entirely concealed within the carina. *Germen* oblong, very silky, tapering into a long, slender *style* curved upwards at the extremity, and tipped with the small *stigma*.

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[*] So named from its affinity with the αστραγαλος of DIOSCORIDES, the OROBUS *vernus* of modern authors.

This very handsome and highly desirable species of ASTRAGALUS is a native of barren wastes in the South of France and of Russia as well as of Hungary, and is perfectly hardy, flowering in May. Although, as cultivated in the Glasgow Botanic Garden from seeds communicated by Mr. OTTO of Berlin, the flowers are always of a rich purple colour, becoming darker and almost blue in age, yet they appear in a wild state to be sometimes cream-coloured or white.

Fig. 1. Flower. 2. Carina and Stamens. 3. Alæ. 4. Pistil:—*magnified.*

W. J. H. del.t

Pub. by S. Curtis Glazenwood Essex Oct.r 1 1833.

LYCHNIS PYRENAICA. PYRENEAN CATCH-FLY.

****

Class and Order.

DECANDRIA PENTAGYNIA.

(Nat. Ord.—CARYOPHYLLEÆ.)

Generic Character.

Calyx tubulosus, 5-dentatus, nudus. *Petala* 5, unguiculata, fauce sæpius coronata. *Stamina* 10. *Styli* 5. *Capsula* 1—3-locularis, anthophoro longo vel nullo. *D C.*

Specific Character and Synonyms.

LYCHNIS *Pyrenaica;* glaberrima, caulibus cæspitosis, foliis radicalibus spathulatis longe petiolatis, caulinis cordatis sessilibus, paniculis dichotomis, calycibus tubuloso-subcampanulatis, petalis subemarginatis fauce coronatis.

LYCHNIS Pyrenaica. *Berg. Fl. Vass. Pyren. 2. p. 264. (D C.) De Cand. Fl. Fr. v. 5. p. 608. Spreng. Syst. Veget. v. 2. p. 421.*

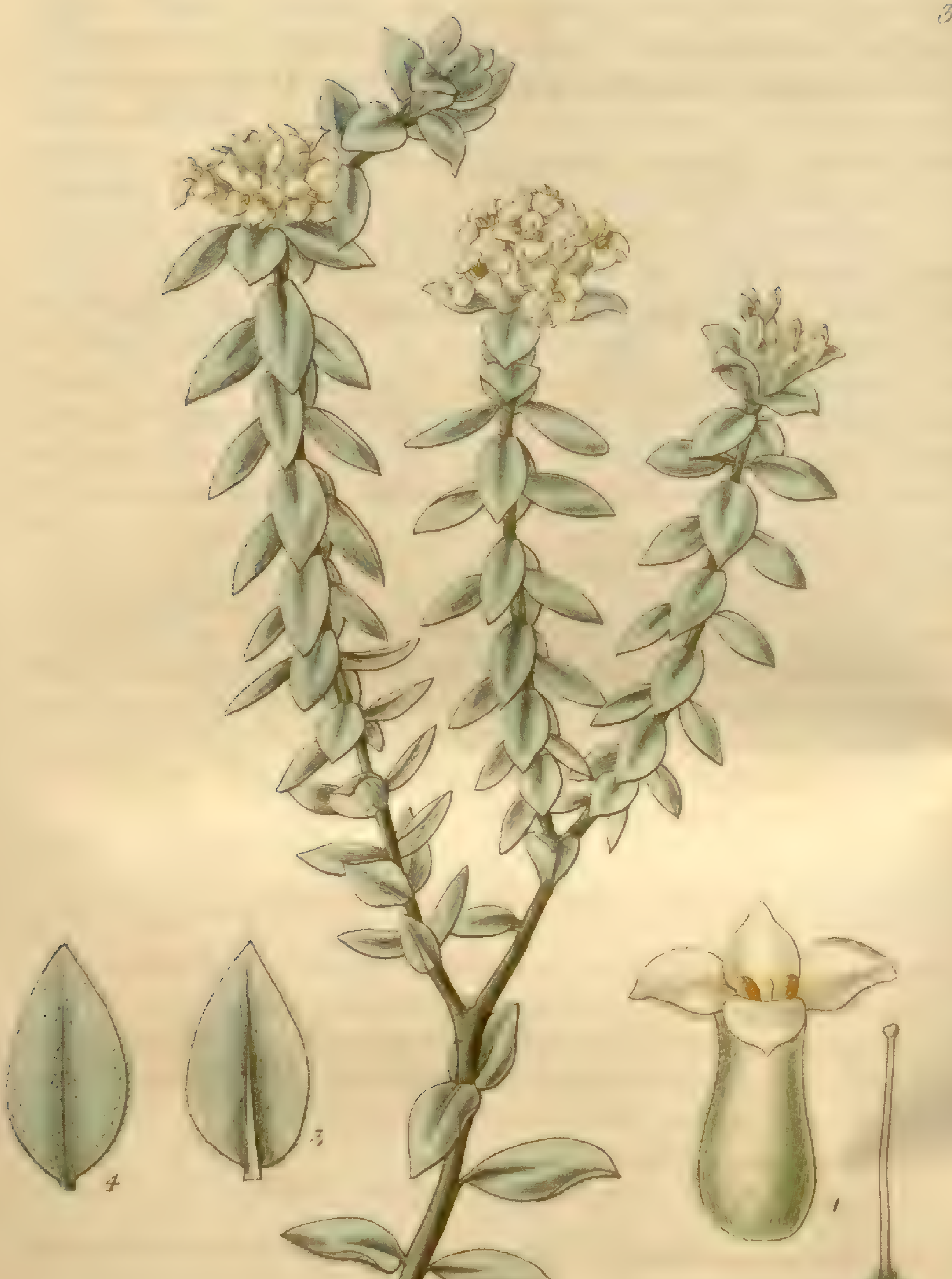
LYCHNIS nummularia. *Lapeyr. Hist. des. Pl. des Pyren. p. 263.*

DESCR. *Root* perennial, slender, fusiform, and fibrous. *Stems* several from the same root, a span or more high, slender, diffuse, quite glabrous, as is every part of the plant. *Leaves* all glaucous green, those of the root spathulate, and on long petioles, those of the stem cordate and sessile. *Panicles* terminal, dichotomous, few- (3—6) flowered. *Pedicels* long and slender, bracteated at the forkings. *Flowers* delicate, and very pale rose-colour. *Calyx* tubular, smooth, broader upwards, and hence somewhat campanulate, green, with five rather broad teeth with membranous, brown margins.

gins. *Petals* clawed; *limb* oblong cuneate, emarginate, with two erect, lanceolate, serrated, rose-coloured scales:—these petals as well as the stamens arise from a receptacle or stalk *(anthophora)* of the germen. *Stamens* ten. *Anthers* oblong, greyish. *Germen* oblong: *Styles* five, slender. *Capsule* (young) elliptical, surrounded by the withered stamens and petals, one-celled, many-seeded.

An inhabitant of rocky places in the Basses Pyrenées, whence I possess beautiful native specimens from the "Unio Itineraria." It has probably only of late been known in a state of cultivation, and no figure that I am aware exists of this highly interesting plant, which is so well suited to ornament an alpine border or rock-work. It succeeds well likewise in a pot, and is perfectly hardy, flowering in June. Our figure is made from plants raised from seeds sent to the Glasgow Botanic Garden, by Mr. Otto of Berlin.

Fig. 1. Petal. 2. Unripe Capsule with the withered Stamens and Petals. 3. Section of ditto:—*magnified.*



Pub by S. Curtis Glazenwood Essex Oct. 1 1833

Swan Sc

PIMELEA ARENARIA. SAND PIMELEA.

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—THYMELEÆ.)

Generic Character.

Perianthium infundibuliforme, limbo 4-fido, fauce esquamata. *Stamina* 2, fauci inserta, laciniis exterioribus opposita. *Stylus* linearis. *Stigma* capitatum. *Nux* corticata, raro baccata.—Frutices: Folia *opposita vel alterna.* Flores *capitati, terminales, foliis involucrantibus sæpe dissimilibus, interdum connatis, rarius spicati vel axillares, quandoque dioici.* Perianthii *tubus in plerisque medio articulatus, articulo inferiore persistente. Br.*

Specific Character and Synonym.

PIMELEA *arenaria;* foliis (decussato-oppositis) ellipticis obtusiusculis patentibus supra glabris subtus cano-hirtis, floralibus capitulum 5—7-florum subæquantibus, perianthii tubo brevissimo suburceolato lanuginoso persistenti, stylo staminibus parum longiore, fructu baccato. *Allan Cunningham MSS.*

PIMELEA arenaria. *Allan Cunningham MSS.*

DESCR. A small, erect *shrub,* branched in a dichotomous manner, the branches hairy, especially the younger ones. *Leaves* opposite and decussate, ovate, acute, sessile or scarcely petiolated, standing out horizontally or sometimes reflexed, obscurely downy above, densely clothed with appressed, silky hairs beneath, which give the margins a ciliated appearance; colour glaucous green. The floral leaves stand closer together than the rest, forming a sort of involucre beneath the flower, but they are not otherwise different. *Flowers* white, capitate, terminal, pure white,

nearly erect, and large for the Genus. *Perianth* silky on the outside; the *tube* contracted upwards; the *limb* of five broadly ovate, spreading, rather obtuse segments. *Filaments* scarcely any; hence the *anthers* of a deep orange colour, hardly rise beyond the mouth of the perianth. *Germen* oblongo-ovate, very silky. *Style* as long as the tube, slender, filiform. *Stigma* capitate.

"This interesting PIMELEA, which appears closely allied to Mr. BROWN'S P. *cinerea*, a native of Van Diemen's Land, I found growing on the bare, exposed, sandy ridges at the entrance of the river Hokianga, on the Western coast of the Northern island of New Zealand, where it was observed in flower in the months of September and October, 1826. It approaches also near to P. *nivea* of LABILL. which, however, has imbricated leaves and stamens extending beyond the tube of the perianth; as well as to P. *pilosa*, VAHL, (BANKSIA *tomentosa*, FORST.) equally an inhabitant of New Zealand; but that is described as a twiggy shrub, with lanceolate leaves." *Allan Cunningham.*

Introduced by Mr. ALLAN CUNNINGHAM, in 1827, to the Royal Gardens of Kew, whence our flowering specimen was obligingly communicated by Mr. AITON, in July, 1833.

Fig. 1. Flower. 2. Pistil. 3. Upper, and f. 4, under side of a Leaf: *magnified.*

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W. J. H. del.

Pub by S. Curtis. Glazenwood Essex Oct 1 1833.

Swan Sc.

(3271)

PLAGIANTHUS DIVARICATUS. SPREADING PLAGIANTHUS.

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Class and Order.

MONADELPHIA DECANDRIA.

(Nat. Ord.—EUPHORBIACEÆ ? BOMBACEÆ. *D C.*)

Generic Character.

Flores hermaphroditi. *Calyx* subhemisphæricus, 5-dentatus. *Pet.* 5, ovalia, basi cum tubo staminum unita. *Stam.* 10—12: *filamenta* in tubum cylindraceum unitum. *Pistillum* solitarium. *Germen* ovatum uni- bi-ovulatum, ovulis suspensis. *Stylus* crassiusculus. *Stigma* magnum, bilobum, hinc decurrens, papillosum. *Capsula* subdrupacea, mono-dicocca, apiculata, indehiscens ? *Cocculi* monospermi. *Semen* pendens. *Albumen* carnosum. *Embryo* immersus curvatus: *Radicula* cylindracea ad hilum seminis versa: *Cotyledones* majusculæ, planæ, subfoliaceæ, longitudinaliter undulatæ.—Frutex *parvus, virgatus.* Folia *linearia, fasciculata, 3-nervia.* Flores *subsolitarii, parvi, brevi-pedunculati, flavescentes.*

Specific Name and Synonyms.

PLAGIANTHUS * *divaricatus.*
PLAGIANTHUS divaricatus. *Forst. Gen. t.* 43. *De Cand. Prodr. v.* 1. 477. *Spreng. Syst. Veget. v.* 3. *p.* 81.

DESCR. A twiggy *shrub,* with dark brown and roughish bark and leaves, which latter are fascicled, small, linear, generally broader upwards, obtuse, quite entire and glabrous, with a central rib, and two lateral, wavy nerves, showing some disposition to anastomose with the costa. Among these leaves the *flower* appears, solitary or sometimes two together, small, and upon a very short footstalk. *Calyx* cup-shaped or nearly hemisphærical, persistent, having five small but sharp teeth, glabrous. *Petals* five, oval or obovate, slightly concave, yellowish, spreading, united by their bases to the base of the column. *Stamens* about twelve; the *filaments* combined into a cylindrical column or tube: *Anthers* broadly oval, two-celled, orange-coloured. *Pistil* solitary: *Germen* ovate with one or two pendulous *ovules*: *Style* thickish: *Stigma* two-lobed, large and decurrent on one side, papillose, white. The scarcely mature fruit is a dicoccous, or by abortion a monococcous and oblique, subdrupaceous, slightly downy *fruit*, with an apiculus formed of the persistent base of the style. *Nut*, if it may be so called, chartaceous, indehiscent. *Seed* suspended from the inner margin of the cell with a very short *funiculus*, albuminose: *Albumen* fleshy. *Embryo* large, green, immersed, curved or somewhat conduplicate, the cylindrical *radicle* being turned towards the hilum: *Cotyledons* large, thin, almost foliaceous, longitudinally waved.

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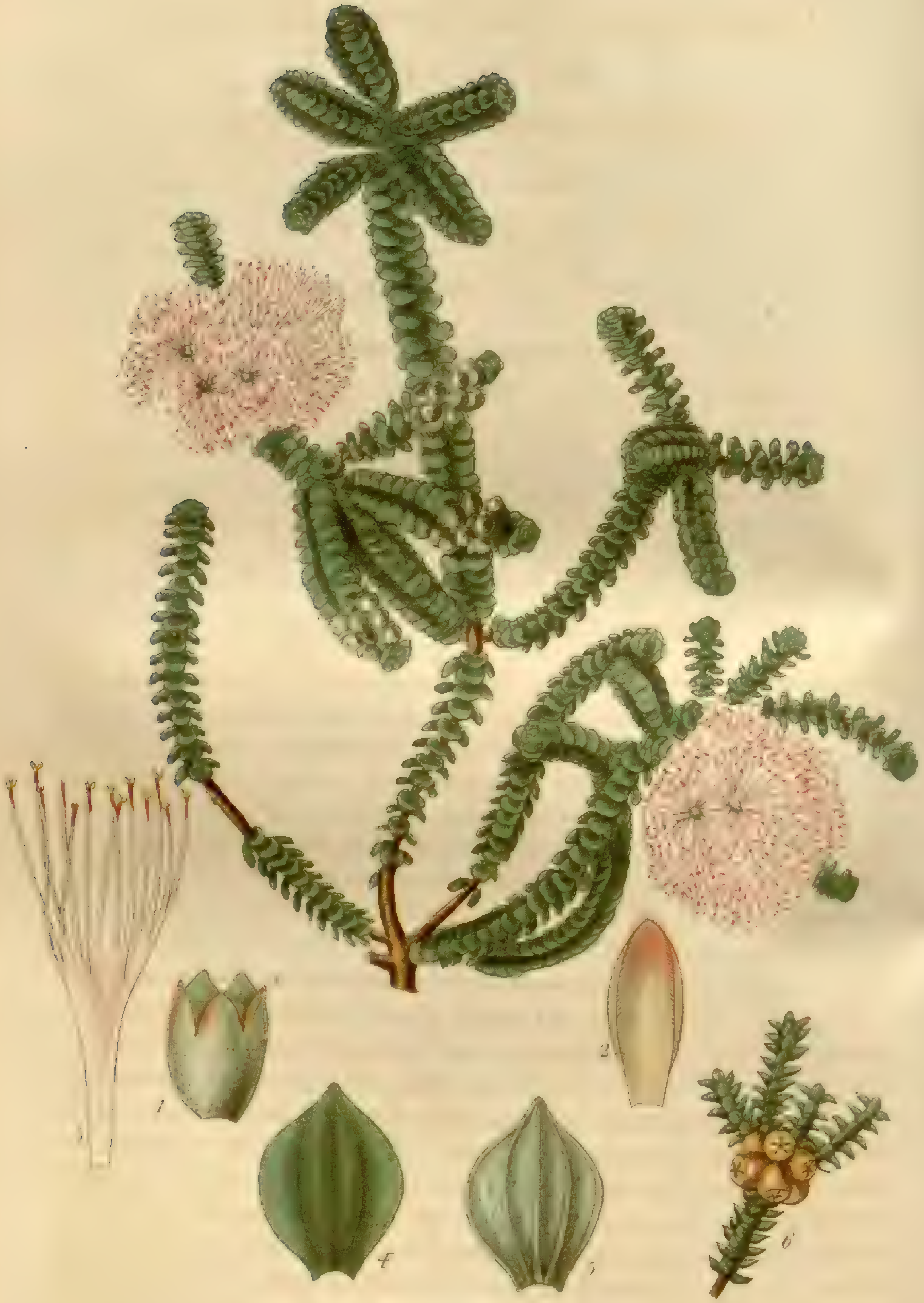
* From πλαγιος, *oblique*, and ανθος, a *flower*, from an obliquity or irregularity of the petals, a peculiarity not observable in the present specimens.

Hitherto nothing appears to have been known of this singular plant, except through the imperfect figure and description of FORSTER above quoted, who discovered the plant in New Zealand. Mr. ALLAN CUNNINGHAM found it in the same country, and introduced it to the Kew Gardens, from which flowering specimens were sent to us in May 1833, and young fruit in the following July, by W. T. AITON, Esq. It is indeed a shrub that has little to recommend it on the score of beauty, but much from its rarity and structure. DE CANDOLLE has referred it to BOMBACEÆ, to which it has a similarity in the column of the stamens. Mr. CUNNINGHAM thinks it may perhaps be allied to a section of BYTTNERIACEÆ, D C., and not far removed from HERMANNIA, or from WALTERIA, in which the fruit is reduced to a single-seeded carpellum; and that the generally pentadelphous stamens, and the seeds usually enveloped in a cottony wool or pulp in BOMBACEÆ forbid its union with that Order. In some respects, there appears to be an affinity with EUPHORBIACEÆ, an idea that has also occurred to Mr. CUNNINGHAM, as well as to Mr. DONN: and there, not, however, without great hesitation, I have placed it.

Fig. 1. 2. Flowers. 3, 4. Pistil. 5. Section of a Germen. 6, 7, 8. Fruits. 9. The same as fig. 7, from which a portion of the coat of the Nut is removed. 10. Transverse, and 11, vertical Sections of a Fruit. 12. Embryo: *magnified*.

3272



[illegible] del.
Pub. by S. Curtis Glazenwood Essex Oct 1. 1833.
Swan Sc

BEAUFORTIA DAMPIERI. DAMPIER'S BEAUFORTIA.

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Class and Order.

POLYADELPHIA POLYANDRIA.

(Nat. Ord.—MYRTACEÆ.)

Generic Character.

Cal. tubus turbinatus, limbus 5-partitus, lobis acutis. *Pet.* 5. *Staminum* phalanges 5, petalis oppositæ. *Antheræ* basi insertæ, apice bifidæ, lobis deciduis (?). *Stylus* filiformis. *Capsula* calycis tubo incrassato corticata, 3-locularis, loculis monospermis.—Frutices *Australasici, elegantissimi.* Folia *sessilia opposita aut sparsa. D C.*

Specific Character and Synonyms.

BEAUFORTIA* *Dampieri;* foliis oppositis decussatis densis lato-ellipticis orbiculatisve obtusis trinerviis, nervis lateralibus obsoletis margine incrassato confluentibus, unguibus phalangium petalo plus duplo longioribus, filamentis patentibus (stam. 7—9). *Allan Cunningh.*

BEAUFORTIA Dampieri. *Allan Cunningham MSS.*

Dammara ex Nova Hollandia, Sanamundæ secundæ Clusii-foliis. *Woodward in Dampier's Voy. (ed.* 1729,*) v.* 3. *p.* 110. *t.* 3. *f.* 4.

DESCR. Apparently a dwarf *shrub,* with many opposite, or subverticillate, tortuose, and sometimes reflexed tetragonal (taken in conjunction with the leaves) branches, which when the leaves have fallen away are quite rough with prominent teeth and scars. *Leaves* small, coriaceous closely placed, beautifully quaternate, generally reflexed, broadly oval, approaching to orbicular, coming suddenly to a rather obtuse point, when dry often carinated, dark green above, scarcely visibly nerved, beneath pale, marked with glandular dots and with three prominent nerves reaching from the base to the point, and also a marginal nerve. *Flowers* numerous, collected in whorls below the extremity of a branch. *Calyx* oval, five-cleft. *Petals* small, erect, oblong-oval, concave, yellow or brownish green, redder towards the apex, and obscurely ciliated at the margin: *Filaments* pale rose, almost white at the base; the very apex deep rose-colour. *Anthers* very small, bifid. *Pistil*, apparently none in the specimen sent. *Fruit* is represented from a dried native specimen, gathered by Mr. CUNNINGHAM, at fig. 6.

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* In honor of MARY, Duchess of BEAUFORT, a Patroness of Botany.

" A rare plant, and one of the few shrubs that are to be found upon the barren, loose, sandy downs of Dirk Hartog's Island, off Shark's Bay, on the West coast of Australia, where its seeds were gathered in 1822, during the surveying voyage of Capt. P. P. KING, in H. M. Sloop Bathurst, and from which the living plants which have repeatedly flowered in the Royal Gardens at Kew were raised. That it is the same plant which the celebrated navigator DAMPIER gathered in 1699 on the sterile shores of the neighbouring main, namely, at Shark's Bay, whilst prosecuting his voyage in H. M. S. Roebuck appears very evident, on a comparison with the figure given in the work above quoted, as well as from the description of the species by Dr. WOODWARD: the differences being only such as arise from cultivation. Speaking of DAMARA, a generic name which it seems was applied by RUMPHIUS, not only to PINUS *Damara*, L. (DAMARA *australis*, LAMB.) but to MELALEUCA *Leucodendron*, L. and another species figured in the Herbarium Amboynense, Dr. WOODWARD says, ' This new Genus was sent from Amboyna by RUMPHIUS, by the name of DAMARA, of which he transmitted two kinds, one with narrow and long stiff leaves, the other with shorter and broader. The present plant, he continues, is of the same Genus with them, agreeing both in flower and fruit, though very much differing in leaves. The flowers are stamineous, and seem to be of an herbaceous colour, growing among the leaves, which are short and almost round, very stiff, and ribbed on the underside, of a dark green above, and a paler colour underneath, thick, set on by pairs, answering one another crossways, so that they cover the stalk. Its fruit is as big as a peppercorn, almost round, of a whitish colour, dry and tough, with a hole on the top, containing small seeds. Every one that sees this plant without its seed-vessels would take it for an ERICA or SANAMUNDA* ', (PASSERINA, L.) The leaves of this plant are of a very aromatic taste." *Allan Cunningham.*

For the above account of this interesting plant, I am indebted to Mr. ALLAN CUNNINGHAM, and to Mr. AITON for the opportunity of figuring it.

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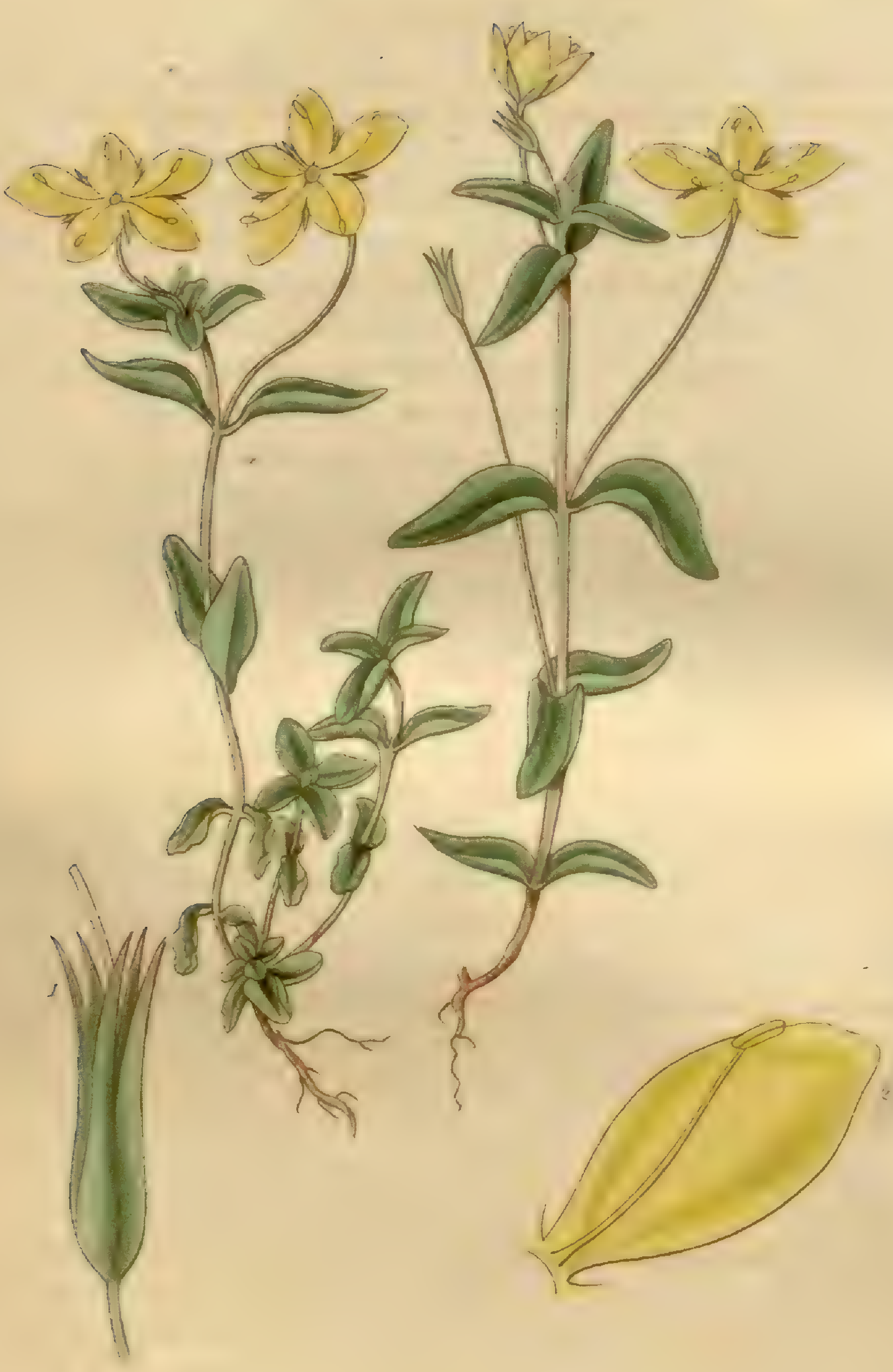
[*] So called *Sana-munda* on account of the purgative qualities by the people of Spain.

Fig. 1. Calyx. 2. Petal. 3. Cluster of Filaments. 4. Upper, and 5, Under-side of a Leaf: *magnified*. 6. Portion of a dried native specimen in Fruit: *nat. size*.

3275



W.J.H. del

Pub. by S. Curtis. Glazenwood. Essex Oct. 1. 1833.

Swan Sc

LYSIMACHIA AZORICA. AZORIAN LOOSE-STRIFE.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—PRIMULACEÆ.)

Generic Character.

Cal. 5-partitus. *Corolla* rotata, 5-fida. *Stamina* 5. *Capsula* globosa, 5—10-valvis.

Specific Character and Synonym.

LYSIMACHIA *Azorica ;* foliis brevissime petiolatis ovato-lanceolatis, lateribus incurvis, pedundulis axillaribus solitariis unifloris, calycis foliolis subulatis, filamentis nudis, caulibus brevibus erectis.

LYSIMACHIA Azorica. *Hort. Hafn.*

DESCR. *Stems* scarcely more than the length of one's finger, erect, slender, reddish, simple or slightly branched near the base. *Leaves* opposite, upon extremely short petioles, glabrous as is all the rest of the plant, ovato-lanceolate, somewhat obtuse, the sides incurved, pale green, in remote pairs. *Peduncles* axillary, solitary, very slender, nearly erect, twice or thrice as long as the leaf, single-flowered. *Calyx* in five very deep, subulate, pale green segments. *Corolla* large in proportion to the size of the plant, rotate, bright yellow ; the *limb* five-partite, the segments oval, very patent. *Stamens* five, inserted opposite to the segments : *Filaments* yellow, quite smooth, remarkably slender, patent : *Anthers* small, oblong. *Germen* globose, small : *Style* slender, filiform.

This extremely pretty LYSIMACHIA was received at the Glasgow Botanic Garden from that of Copenhagen, under the name here given, whence it would appear to be a native of the Azores. It is cultivated in a pot, and treated as an alpine plant; that is, protected from the fickleness of our winters, and kept in a cool, shady situation in the summer; and in the month of June, a pot filled with this little plant is quite a beautiful object; for the peduncles are so long as to elevate the bright and comparatively large yellow flowers above the tops of the stem and the delicate pale green foliage. Different as the plant appears at first sight from L. *nemorum*, yet, except in the smaller size of the stem (which, too, is erect,) and foliage, and narrower leaves with the sides incurved, it will be difficult to point out any distinguishing characters. Indeed, I suspect it is the var. "β. *minor;* caulibus erectiusculis" of GMELIN's Fl. Badensis, 1. p. 455, as quoted by ROEMER and SCHULTES.

Fig. 1. Calyx including the Pistil. 2. Portion of the Corolla, with a Stamen: *magnified.*

5274

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CARGILLIA AUSTRALIS. SOUTHERN CARGILLIA.

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Class and Order.

OCTANDRIA MONOGYNIA.

(Nat. Ord.—EBENACEÆ.)

Generic Character.

Flores polygami. *Cal.* semiquadrifidus. *Corolla* limbo quadrifido. MASC. *Stam.* basi corollæ inserta, (nunc hypogynæ ?) ejusdem laciniis dupla. *Filamenta* duplicata. Rudimentum *pistilli.*—HERMAPHR.—FÆM. *Stamina* effæta, pauciora. *Ovarium* 4-loculare, loculis dispermis. *Bacca* globosa, calyce appresso cupulæformi infra cincto. *Br.*

Specific Character and Synonyms.

CARGILLIA * *australis ;* foliis oblongis glabris apice obtusis basi acutis subtus pallidis, calycibus masculis 4-fidis tubo corollæ æqualibus, stylo indiviso. *Br.*

CARGILLIA australis. *Br. Prodr. Fl. Nov. Holl. p. 327. Spreng. Syst. Veget. v. 2. t. 204.*

DESCR. A much branching *shrub ;* the branches alternate, rounded, glabrous. *Leaves* alternate, somewhat distichous, coriaceous, shortly petiolated, oblong, obtuse at the extremity, acute at the base, glabrous on both sides, dark green above, pale and yellow green beneath, obscurely veined, the margin quite entire ; *petiole* very short, rounded. *Flowers* distinctly four-sided (both calyx and corolla), collected into dense clusters or heads on very

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* Named by Mr. BROWN, in memory of JAMES CARGILL, a Physician of Aberdeen, and a contemporary of CASPAR BAUHIN, who described with considerable care some Scottish Algæ, in the Theatrum Botanicum.

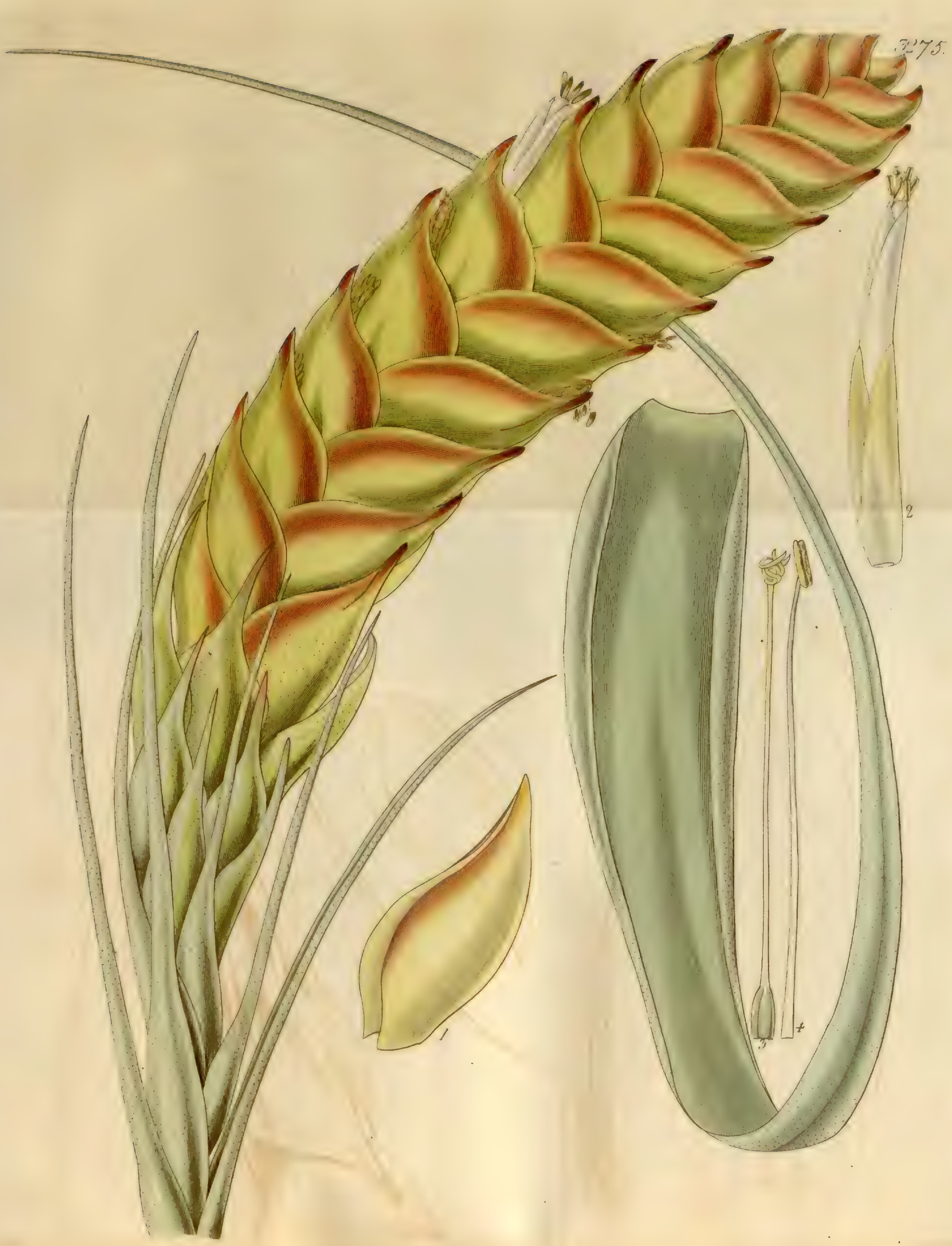
short, axillary peduncles, and all inclined to the back of the branch. *Calyx* downy, four-cleft, the segments, acute, erect. *Corolla* more than twice as long as the calyx, somewhat campanulate, 4-partite, the extremities above recurved, of a yellowish-white colour, externally obscurely downy. —*Male Plant*: *Stamens* included. *Filaments* eight, inserted in pairs at the base of the segments of the corolla, and opposite to them, each filament being double, one behind the other, and bearing an oblong much acuminated anther, opening by a short fissure to each cell, just below the acumen. Abortive *pistil* small, subglobose and acute, with eight furrows.

"An inhabitant of dense, shaded woods on the sea-coast of New South Wales, as well as on the banks of the principal rivers of that colony, between the parallels of 27° and and 35°, where it forms a large shrub, and is usually to be met with in fruit in the winter season. The Genus is intermediate between DIOSPYROS of LINNÆUS and MABA of FORSTER; differing from the former according to Mr. BROWN, in having a four-celled ovarium, and a calyx but partially divided towards its base, which afterwards forms a cupula or cup around the lower half of the fruit; and from the latter in the quaternary divisions of its calyx and corolla, the epipetalous insertion of the stamens in the male, and the presence of the rudiments of those organs in the female flowers." *Allan Cunningham.*

Our drawing and description are made from specimens sent by favour of Mr. AITON, from the Royal Gardens of Kew, to which living plants were introduced from Port Jackson, by ALLAN CUNNINGHAM, Esq. in 1825.

Fig. 1. Flower. 2. Corolla. 3. Portion of a Corolla, with two double Stamens. 4. Anther. 5. Abortive Pistil: *magnified.*

3275.



W. J. H. delt. Pub: by S. Curtis. Glazenwood. Essex. Octr 1. 1833 Swan Sc.

TILLANDSIA SETACEA. SETACEOUS-LEAVED TILLANDSIA.

* * *

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—BROMELIACEÆ.)

Generic Character.

Calyx 3-partitus, inferus. *Petala* 3, convoluta, distincta, basi nuda. *Stylus* filiformis. *Stigmata* recta *(Lindl.)* vel convoluta. *Fructus* capsularis. *Semina* papposa.

Specific Character and Synonyms.

TILLANDSIA* *setacea;* foliis e basi dilatata ventricosa anguste subulatis curvatis rigidis extus farinoso-squamulosis, scapo folioso, spica solitaria magna simplici, bracteis cymbiformibus distiche imbricatis unifloris, stigmatibus convolutis.

TILLANDSIA setacea. *Swartz, Fl. Ind. Occ. v.* 1. *p.* 593. *Schultes, Syst. Veget. v.* 7. *p.* 1207.

DESCR. A parasite on the trunks of trees. *Stem* scarcely any. *Leaves* numerous, imbricated, about a foot long, curved to one side, from a broad, sheathing, and very concave base gradually becoming subulate, grooved, rigid, of a dingy green, whitish on the outside owing to the numerous, minute scales, which present a mealy surface. At the flowering season, the *stem* elongates itself into a leafy scape, scarcely a foot in length, and the leaves become gradually shorter and broader, till at length, from being imbricated on

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[*] In honor of ELIAS TILLANDS, a Swedish Botanist, and Professor of Medicine in the University of Abo.

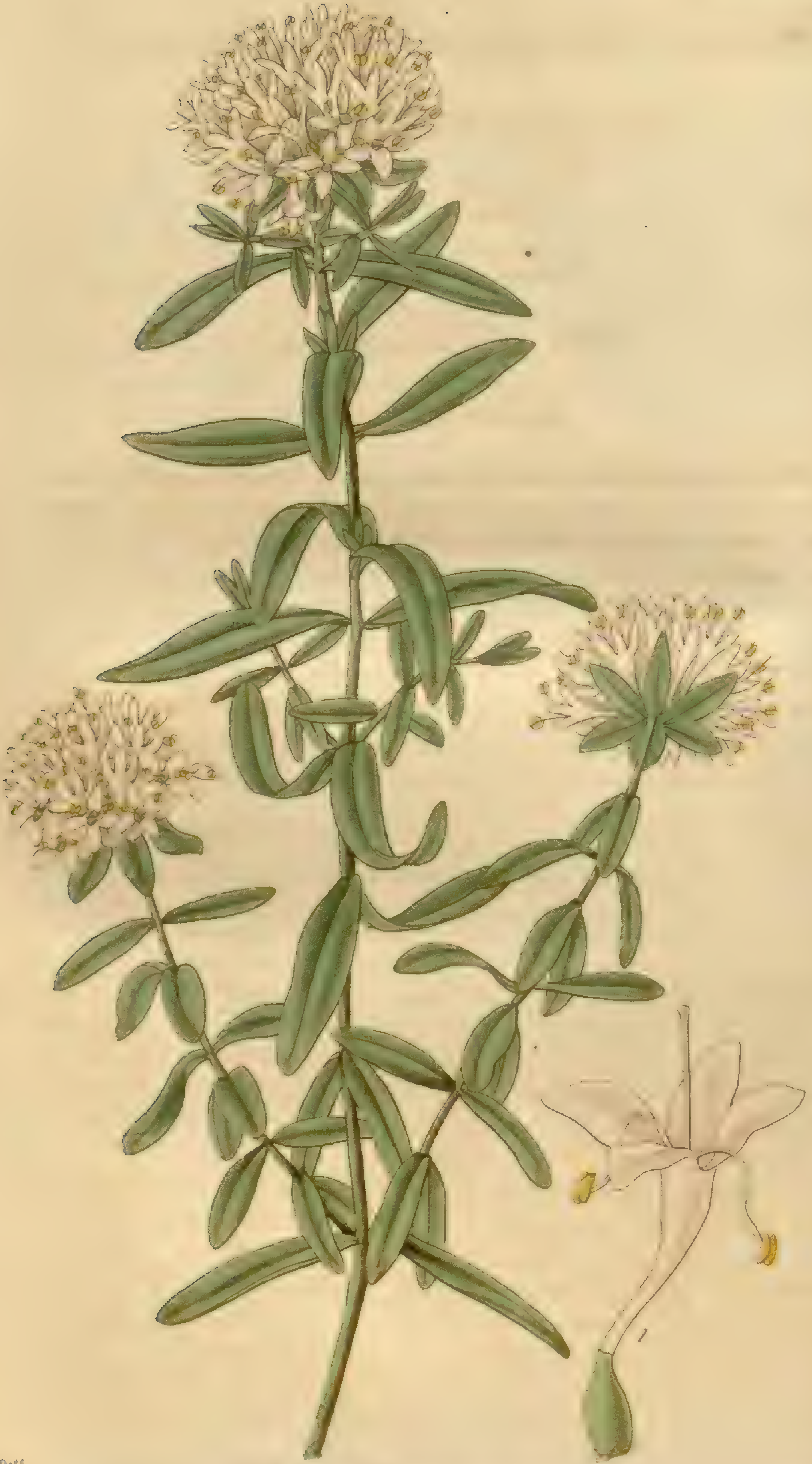
= T. compressa, fide Bak. Handb. 172.

on all sides, they become the large, cymbiform, imbricated, distichous, bluntly mucronated *scales* or *bracteas* of an oblong, solitary, simple *spike*:—these scales are coriaceous, free from the little squamulæ which abound so much upon the leaves; the margin of a beautiful red. From each of these scales arises a single flower in succession, one only being in perfection at a time, and continuing for a day, and of this the upper half only is protruded beyond the scale. Entire *flowers* two inches long. *Calyx* inferior, three-partite, pale yellow; the segments carinated, imbricated: *Petals* three, twice the length of the calyx, distinct, convolute, white, purplish upward. *Stamens* six, arising from the receptacle, filiformi-subulate, white or purplish, as long as the corolla: *Anthers* oblong, brownish-green: *Pollen* yellow. *Germen* superior, oblong, and triangular: *Style* filiform, white: *Stigmas* three, closely convolute, yellow.

Among a valuable collection of Jamaica plants received by the Glasgow Botanic Garden from Mr. SMITH, was the present truly fine species of TILLANDSIA, which blossomed in the stove in the month of May, 1833. The leaves are of a pale or whitish hue; but the scales or bracteas of the spike are richly variegated with red and yellow, and each bears in succession, a single and delicate flower, which continues but for one day.

Fig. 1. Bractea, and 2. Flower; *nat. size*. 3. Pistil. 4. Stamen; *slightly magnified.*

3276



W. J. H. Delᵗ

Pub by S. Curtis Glazenwood Essex Nov.1 1833.

Swan Sc.

PIMELEA SYLVESTRIS. WOOD PIMELEA.

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—THYMELEÆ.)

Generic Character.

Perianthium infundibuliforme, limbo 4-fido, fauce e squamata. *Stamina* duo, fauci inserta laciniis exterioribus opposita. *Stylus* lateralis. *Stigma* capitatum. *Nux* corticata, raro baccata. *Br.*

Specific Character and Synonyms.

PIMELEA *sylvestris;* foliis oppositis utrinque glabris lanceolatis acutis, floralibus 4—5 rameis subsimilibus capitulo terminali multifloro brevioribus, perianthiis glabris, tubo infundibuliformi. *Br.*

PIMELEA sylvestris. *Br. Prodr. v.* 1. *p.* 361. *Spreng. Syst. Veget. v.* 1. *p.* 92.

This pretty species of the Genus, with its copious heads of delicate rose-coloured flowers, and prominent stamens with orange-coloured anthers, has been raised in the Glasgow Botanic Garden from seeds sent by the late Mr. FRASER, and adds another to the species not hitherto, we believe, cultivated in the gardens of Europe.

A shrub, with rather copious, green, and rounded *branches,* quite glabrous. *Leaves* opposite and decussate, lanceolate or oblongo-lanceolate, acute, or, not unfrequently obtuse, single-nerved, glabrous, of a glaucous green colour; those of the involucre smaller, and shorter than the capitulum. *Heads of Flowers* large, of a pale rose colour. *Perianth* quite glabrous; *tube* infundibuliform, curved, very narrow at the base; *limb* spreading, of

four ovate segments. *Filaments* much protruded : *anthers* orange. *Germen* glabrous, ovate, pale green, inferior, inserted upon a small stellated tuft of hairs. *Style* much longer than the tube of the corolla.

Fig. 1. Flower: *magnified.*

3277

W. J. H. del.
Pub. by S. Curtis, Glazenwood, Essex. Nov.r 1.1833.
Swan sc.

(3277)

HYPERICUM HYSSOPIFOLIUM. HYSSOP-LEAVED ST. JOHN'S WORT.

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Class and Order.

POLYADELPHIA POLYANDRIA.

(Nat. Ord.—HYPERICINEÆ.)

Generic Character.

Capsula membranacea. *Styli* 3—5 in quibusdam numero variabiles. *Stamina* numerosa, basi polyadelpha, raro numero subdefinita. *Pet.* 5. *Sepala* 5, basi plus minusve coalita et inæqualia.—Herbæ *aut* suffrutices. Folia *opposita, sæpe pellucido-punctata, aut margine nigro-punctata.* Flores *varie dispositi.*

Specific Character and Synonyms.

HYPERICUM *hyssopifolium;* caule herbaceo tereti adscendente, foliis linearibus glabris subnervosis, pellucide punctatis glaucis glaberrimis in axillis fasciculatis, calycibus obtusis petalisque contortis ciliato-glandulosis.

HYPERICUM hyssopifolium. *Vill. Delph. v.* 3. *p.* 505. *t.* 44. *Willd. Sp. Pl. v.* 3. *p.* 1470. *Bieb. Fl. Taur. Cauc. v.* 2. *p.* 231. *De Cand. Prodr. v.* 1. *p.* 552. *Spreng. Syst. Veget. v.* 3. *p.* 349.

HYPERICUM alpestre. *Fischer in Herb. nostr.*

Of the extensive Genus HYPERICUM (ὑπερικον of DIOSCORIDES) upwards of one hundred and twenty species are enumerated by DE CANDOLLE. Some are employed medicinally; but the greater number recommend themselves by the liveliness and number of their blossoms—

> " HYPERICUM, all bloom, so thick a swarm
> Of flowers, like flies, clothing its slender rods,
> That scarce a leaf appears"—

a quality in which our present species is by no means deficient. It is, however, at present but little known in our gardens. It is a native of the South of France and also of Tauria, from which latter country it has been introduced into the Edinburgh Botanic Garden through the liberality of Dr. FISCHER. It flowers in the open border in June, and may be increased by parting its roots as well as by seeds.

" *Stems* (a foot and a half high) many from the crown of the root, ascending, much branched, panicled above, glabrous, round, marked with two opposite, obscure ridges, alternating in the inner nodes. *Leaves* (nine lines long, three lines broad,) decussating, sessile, elliptico-linear, glaucous, glabrous, spreading wide, channelled in the middle, and having a few faint, lateral veins, entire and slightly revolute in the edge, dotted with minute, pellucid points. *Panicle* large, terminal; *peduncles* three-flowered, the lateral flowers opposite, and arising from the axils of diminished leaves. *Calyx* segments ovate, blunt, marked with pellucid streaks, fringed with black glands. *Corolla* (one inch across when expanded) much contorted; *petals* spreading, clawed, obovate, unequal, nerved, pellucido-punctate, subserrate, ciliated with black glands; *claws* longer than the calyx. *Stamens* erect; *filaments* much shorter than the corolla, yellow, irregularly connate at the base; *anthers* incumbent, greenish yellow. *Stigmata* small, of many minute red points. *Styles* three, diverging, yellow. *Germen* ovate, three-lobed, reddish, striated, afterwards of deeper red, three-celled. *Ovules* oblong, very numerous, attached to the central receptacle. *Graham.*

Fig. 1. Petal. 2. Calyx and young Fruit: *magnified.*

3278.

Mr. Jas. MacNab Del.

Swan Sc.

[illegible] Essex [illegible]

SYRINGA JOSIKÆA. DEEP-FLOWERED GERMAN LILAC.

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—OLEINEÆ.)

Generic Character.

Cal. 4-dentatus. *Cor.* infundibuliformis, 4-loba. *Caps.* 2-locularis, 2-sperma.

Specific Character and Synonyms.

SYRINGA* *Josikæa;* foliis elliptico-lanceolatis acutis ciliatis rugosis utrinque glabris supra lucidis subtus albidis. *Graham.*

SYRINGA Josikæa. *Jacq. in Bot. Zeit.* 1831, *p.* 67. *Reichenb. Pl. Crit. t.* 1049. *Ejusd. Fl. Germ. Excurs. p.* 432. *Graham, in Edin. Phil. Journ. June,* 1833.

A new species of *Lilac,* even though less beautiful than the two in common cultivation, yet being equally hardy, cannot fail to be a most acceptable ornament to our gardens and shrubberies. Our valued friend, Dr. GRAHAM, to whom we are indebted for the specimen and the drawing here given, was not aware of its history and previous denomination when he lately sent it to us under the name of S. *Jacquini.* From the Botanische Zeitung for 1831, we learn, that at the meeting of Naturalists in Hamburg, in 1830, on the sitting of the 20th September, Baron JACQUIN exhibited dried specimens of this plant from Siebenbürgen, and since its discovery was due to "Frau Baronin von **Josika**, gebohren Grafin Czaki," he named it in compliment to that distinguished lady, and gave it a specific character.—In another part of the same work we find that not only is the present species a native of Germany, but that the common Lilac, S. *vulgaris*, which has hitherto been considered almost exclusively of Persian origin, is stated, by Dr. Heuffel to adorn with its copious blossoms the inaccessible chalky precipices of the Cverna Valley and Mount Domaglett in Hungary, as well as the whole groupe of rocks along the Danube, at the military boundaries of Moldowa, Szaszka, Csiklova, and Krassova.

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* From συριγξ, a *pipe,* on account of the uses which the Turks make of its tubular branches.

Our T. *Josikæa,* which flowers in the open border in May and June, is thus described by Dr. Graham, who received the plant at the Botanic Garden of Edinburgh from Mr. Booth, of Hamburg, in 1833.

Shrub erect; branches spreading, very slightly warted, twigs purple. *Leaves* (three inches long, an inch and a quarter broad) elliptico-lanceolate, attenuated at both extremities, shining and lurid above, white* and veined below, wrinkled, glabrous on both sides, ciliated, ciliæ short. *Panicle* terminal, erect. *Calyx,* like the pedicels, peduncles, rachis, petiole, middle rib of the leaf and the branches, pretty closely covered with short, glandular pubescence, four-toothed, teeth blunt, and much shorter than the tube. *Corolla* (half an inch long) clavato-funnel-shaped, deep lilac, glabrous, wrinkled; *tube* slightly compressed; *limb* erect, four-parted, *segments* involute at their edges. *Stamens* adhering to about the middle of the tube; *anthers* incumbent, oblong, yellow. *Pistil* much shorter than the tube; *stigmata* large, cohering; *style* filiform, glabrous; *germen* green, glabrous, bilocular; *ovules* four. *Graham.*

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* Resembling, as is well observed by Reichenbach, the underside of the leaves of Populus *balsamifera.* H.

Fig. 1. Flower. 2. Stamen. 3. Calyx and Pistil. 4. Pistil.

3279

[illegible] Pub. by S. Curtis Glazenwood, Essex Nov.r 1 1833. [illegible]

ACACIA GRAVEOLENS. STRONG-SCENTED ACACIA.

* * *

Class and Order.

POLYGAMIA MONŒCIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Flores polygami. *Calyx* 4—5-dentatus. *Petala* 4—5, nunc libera, nunc in corollam 4—5-fidam coalita. *Stam.* numero varia, 10—200. *Legumen* continuum, exsuccum, bivalve. *De Cand.*

Specific Character and Synonyms.

ACACIA *graveolens;* stipulis deciduis lanceolatis acutis utrinque attenuatis binerviis undique punctis glandulosis minutis copiose conspersis, margine antico basi uniglanduloso, capitulis geminis ternisve axillaribus, pedicellis cano-pubescentibus capitulum subæquantibus, ramulis angulatis virgatis. *Allan Cunningham* (1818).

ACACIA graveolens. *Lodd. Bot. Cab. t.* 1460 (1829). *Don's Syst. of Gard. v.* 2. *p.* 404. *n.* 44.

Among the remarkable plants of New Holland, and those which form a striking feature in the vegetation of the country, may be reckoned the *Acacias,* and especially that groupe or tribe whose petioles (the leaflets being abortive) become dilated, resembling coriaceous leaves, no doubt perform all the functions of true leaves. Of the real nature of these petioles (to which the name of *phyllodia* has been given) there can be no question, since, in a young state, they bear leaflets, and even when perfect are not always destitute of them. But of the number of these species, and the great beauty of many, few can form an estimate, except those who have had the opportunity of seeing the collections recently brought to this country for the Herbarium, especially by Mr. ALLAN CUNNINGHAM, Mr. FRASER, and Dr. SIEBER. To the first of these gentlemen we are indebted for our knowledge of the present species; who found it on the margins of rivulets in the neighbourhood of Hobart Town, Van Diemen's Land, where it was observed in flower and fruit in the month of February. From the seeds which were collected at that period, plants were raised in the King's Gardens at Kew; whence it originally emanated to other collections around London, and we also were favoured by W. T. AITON, Esq. with a flowering specimen in the month of May, 1833.

It forms a twiggy shrub in the greenhouse with angular, brown, and slightly viscid branches. *Leaves,* or rather *leaf-stalks (phyllodia)* alternate, two to four inches long, narrow-lanceolate, rigid, slightly glutinous, two-nerved, with a somewhat thickened margin, acute and tipped with a curved mucro, at the base having an imperfect gland. *Flowers* collected into dense heads, the size of a large pea, which are sessile, or very nearly so, and standing in pairs from the axils of the leaves. *Calyx* cup-shaped, five-cleft. *Corolla* monopetalous, five-cleft. *Stamens* very numerous.

As a species, it may perhaps rank next to A. *dodoneæfolia,* from which it differs in the more sharply-pointed, two-nerved foliage, and nearly sessile heads of flowers.

Fig. 1. Portion of a Leaf. 2. Flower: *magnified.*

M. J. Macnab. del.
Pub. by S. Curtis. Glazenwood, Essex. Novr 1 1833. [illegible]

FRITILLARIA MINOR. LESSER ALTAIC FRITILLARY.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—LILIACEÆ.)

Generic Character.

Corolla 6-petala, nectarifera, supera. *Semina* compressa, marginata.

Specific Character and Synonyms.

FRITILLARIA *minor;* caule inferne nudo subunifloro, foliis sparsis linearibus canaliculatis, flore subtesselato, petalis exterioribus oblongis, interioribus latioribus obovatis. *Ledeb.*

FRITILLARIA minor. *Ledeb. Ic. Pl. Fl. Ross. Alt.* 2. 12. *t.* 130.—*Ibid. Fl. Altaica,* 2. 34. *Grah. in Edin. Phil. Journ. June,* 1833.

FRITILLARIA meleagroides. *Patrin, in Schult. Syst. Veget.* 7. 395.

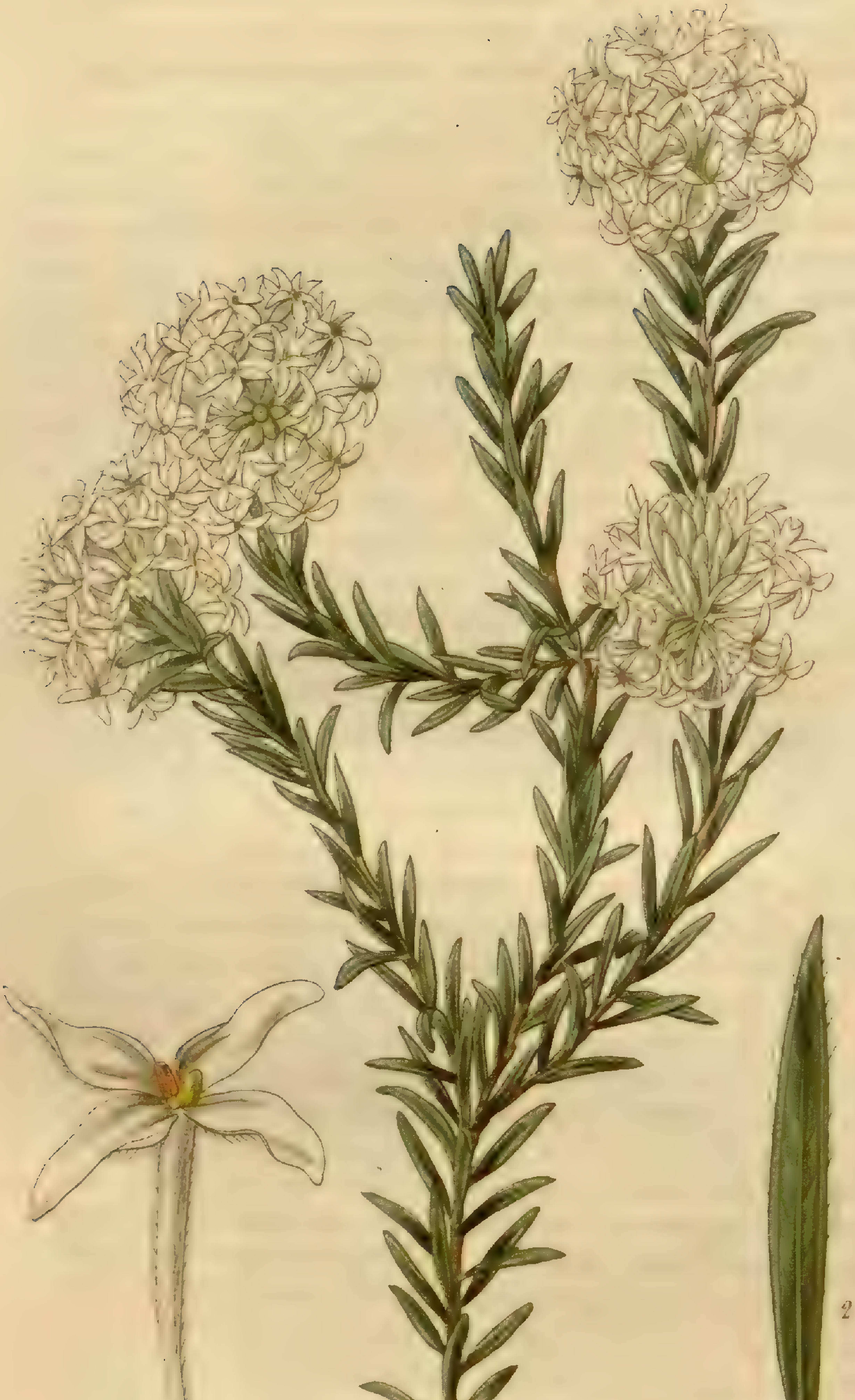
Of the Genus FRITILLARIA, so called from *fritillus* a *dice-box,* on account of the shape of the flower, though the chequered blossom rather recalls the idea of a *dice-board,* nineteen species are enumerated by SPRENGEL, all remarkable for their large and gracefully drooping flowers, which render them universal favourites with cultivators. Of these, the greater number, perhaps the only legitimate species, are natives of middle or southern Europe or northern Asia. The present new species was discovered by Prof. LEDEBOUR, in pastures of the Altai Mountains, and having flowered at Carlowrie, near Edinburgh, early in May of the present year, we are indebted to Dr. GRAHAM for the following description and remarks.

Bulb roundish, white, about the size of a small hazel nut, with many slender roots from its base. *Stem* (in native specimens, from seven inches to a foot high, in the cultivated specimen one foot ten inches) erect, simple, single-flowered in native plants, and almost always so in such, according to Ledebour; in the cultivated ones three-flowered, pruinoso-glaucous, brown and speckled towards its base, obscurely three-sided, naked for a considerable way above the base. *Leaves* scattered, smaller upwards (in native individuals four to five, the lower three inches long, in the cultivated seven, the lower six inches long,) lanceolato-linear, channelled along the upper surface, blunt, suberect, pruinoso-glaucous, half stem-clasping. *Flowers* generally solitary in the wild plant, one to three in the cultivated, springing from a common point at the top of the stem between two subopposite leaves, and provided with peduncles (above two inches long), nodding, dark blood-red, obscurely tessellated, pale, more yellow and more distinctly variegated within, *nectaries* linear; *outer petals* oblong, slightly spreading at the apices, *inner* broader, obovate, connivent at the apex. *Stamens* subequal, about half the length of the corolla; *filaments* subulate, slightly dilated at the base, and very sparingly glanduloso-pubescent; *anthers* oblong, yellow; *pollen granules* small, oblong, yellow. *Pistil* rather longer than the stamens; *stigma* tripartite, erecto-patent, green; *style* triangular, cleft to about its middle, the stigmatic surface extending along the inside of the segments; *germen* of uniform diameter from end to end, distinctly grooved along the angles, and more obscurely along the sides; *ovules* very numerous, two-rowed in each cell.

This plant was obtained by David Falconar, Esq. from Mr. Goldie, who brought it from Russia. It varies a little from the wild state. I have native specimens both from Dr. Fischer of St. Petersburg and from Professor Ledebour. The former are smaller, but the inflorescence is larger, and the leaves, which are longer and narrower, are collected nearer to the flower. Even in a wild state, it appears from Ledebour, that occasionally, though rarely, there are more flowers than one on the stem, and the two lowest leaves are sometimes subopposite. I cannot but think that this plant scarcely differs more from F. *Meleagris* than some of the acknowledged varieties of this species. The great length of the pendulous part of the stem or peduncle, which Ledebour considers characteristic, and which is figured in his beautiful illustrations of the Flora Altaica, is not possessed by my native specimens, nor by Mr. Falconar's plant, and the flower in the figure is much less lurid, and longer in proportion to its breadth, than any of these. *Graham.*

Fig. 1. Petal. 2. Pistil: *magnified.*

3281



W. J. H. del.^t Pub. by S. Curtis, Glazenwood, Essex, Nov.^r 1.1833. Swan Sc.

(3281)

PIMELEA LONGIFLORA. LONG-FLOWERED PIMELEA.

* * *

Class and Order.

DIANDRIA MONOGYNIA.

Nat. Ord.—THYMELEÆ.)

Generic Character.

Perianthium infundibuliforme, limbo 4-fido, fauce e squamata. *Stamina* duo, fauci inserta laciniis exterioribus opposita. *Stylus* lateralis. *Stigma* capitatum. *Nux* corticata, raro baccata. *Br.*

Specific Character and Synonyms.

PIMELEA *longiflora;* foliis linearibus villosiusculis passim alternis, floralibus rameis similibus, capitulis terminalibus, limbo dimidium tubi æquante, stylo incluso. *Br.*

PIMELEA longiflora. *Br. Prodr. v.* 1. *p.* 361. *Spreng. Syst. Veget. v.* 1. *p.* 92.

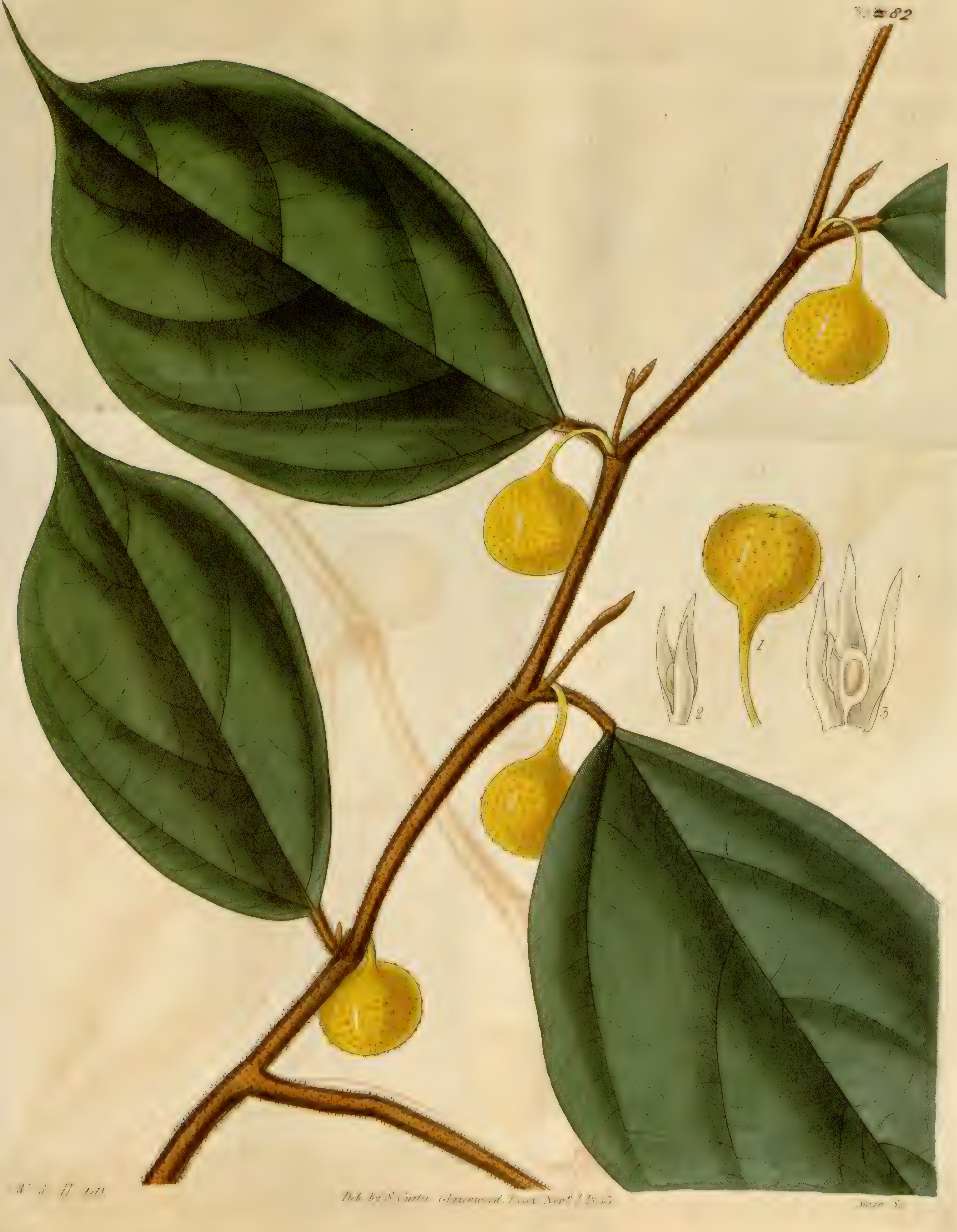
The vegetable inhabitants of New South Wales being in general readily cultivated in peat earth, and easily increased by cuttings, have been in great request for the greenhouse and conservatory, and among them are the different species of *Pimelea,* of which thirty-four species are enumerated by Mr. BROWN, though thirteen only have hitherto been known amongst British cultivators. The present was introduced to our gardens by Mr. FRASER, from the Southern shores of New Holland, and is rendered beautiful by the comparatively large and globose heads of pure white blossoms terminating the slender and wavy branches. Its flowering season in the Glasgow Botanic Garden is June.

The stem is four feet or more high, slender, but erect, divided upwards with opposite branches of a reddish-brown

colour, wavy and almost filiform, hairy, especially upwards. *Leaves* opposite, or sometimes alternate, linear, approaching to lanceolate, hairy, with three nerves, prominent and paler beneath. *Flowers* collected into globose heads and destitute of any distinct involucre, the few leaves which are situated at the base of the flowers being similar to those of the branches. *Perianth* pure white, hairy externally. *Tube* long and slender: *limb* of five spreading, ovato-lanceolate segments. *Anthers* yellow, scarcely protruded: *Pollen* orange. *Germen* inferior, pale green, inserted upon a tuft of hairs. *Style* quite included.

Fig. 1. Flower. 2. Leaf:—*magnified.*

3282



W. J. H. del.   Pub. by S. Curtis, Glazenwood, Essex Novr. 1 1833.   Swan Sc.

FICUS ACUMINATA. SHARP-POINTED FIG.

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Class and Order.

POLYGAMIA DIŒCIA.

(Nat. Ord.—URTICEÆ.)

Generic Character.

Receptaculum carnosum, clausum, apice pervium, androgynum. *Flosculi* pedicellati: MASC. 3-partiti. *Stam.* 3.—FÆM. 4—8-partiti. *Stylus* lateralis bifidus. *Semina* in pulpa receptaculi nidulantia. *Spreng.*

Specific Character and Synonyms.

FICUS* *acuminata;* ramis petiolisque ferrugineo-tomentosis, foliis lato-ellipticis obovatisque longe tenuiter acuminatis supra glabris subtus pubescentibus nervis prominentibus, receptaculis solitariis globosis pendulis farinosis longe pedunculatis.

FICUS acuminata. *Ham. Herb.—Wall. in Cat. of Pl. of E. I. C. n.* 4478.

The Genus of the Figs is one of the most extensive among plants, chiefly inhabiting the tropics, many of the species constituting trees of gigantic height, no less remarkable in their fructification than in the sheathing stipules and milky juice, and bearing a great affinity with the Bread-Fruit (ARTOCARPUS). FICUS *elastica,* and other species probably, yields Caoutchouc: a few afford esculent fruits, chiefly the common cultivated Fig, FICUS *Carica* and the Sycamore of the Scriptures, F. *Sycamorus,* whilst the F. *religiosa,* Banyan Tree, or Sacred Fig of the Hindoos, is one of the many astonishing features of Indian vegetation:—

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* This THÉIS traces to the Celtic *Figuezen,* a Fig.

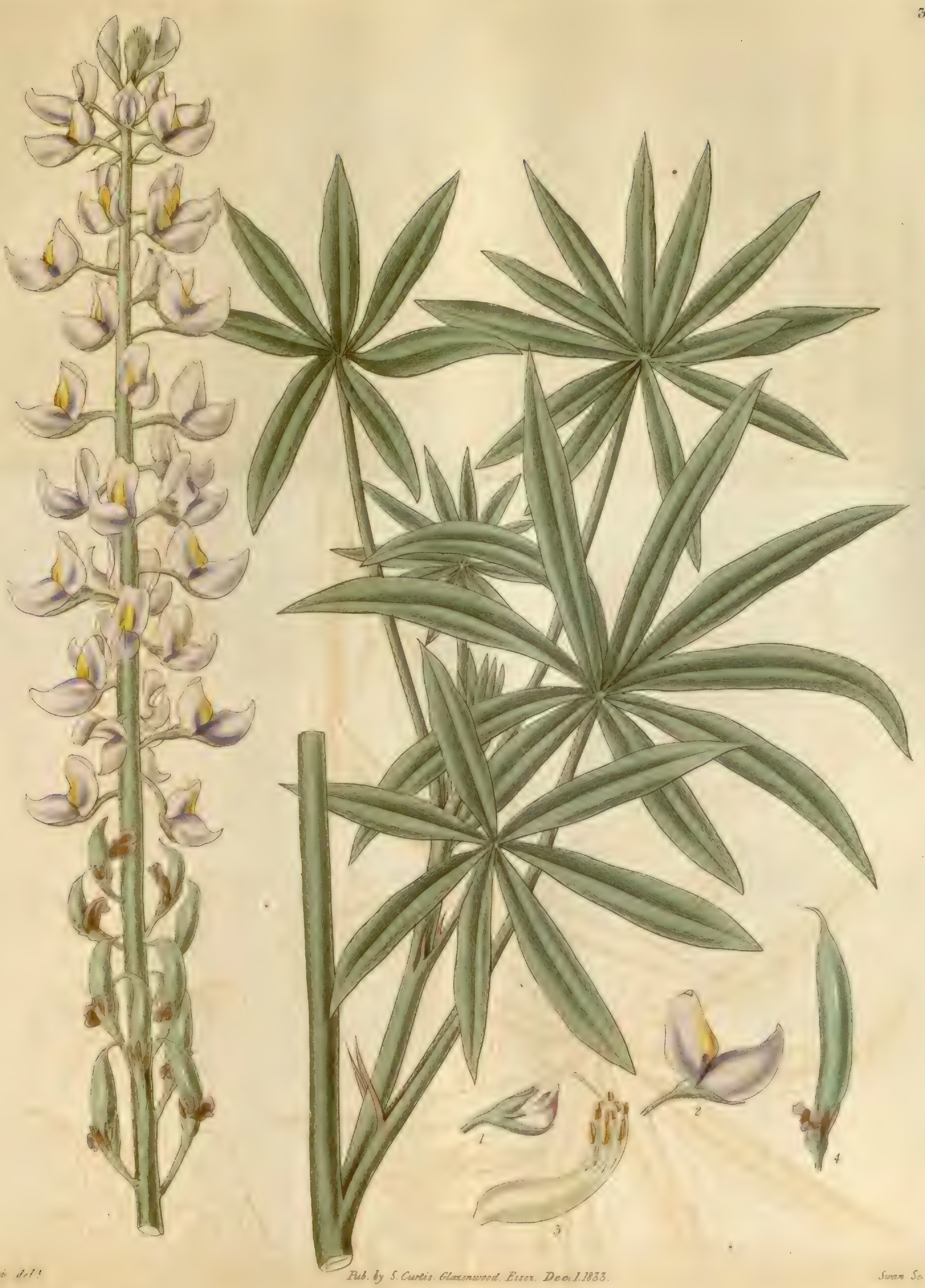
————————" its wondrous branch
Bent down to earth, new stems can launch,
Which upward spring to bend again
And form a forest o'er the plain."

No where, perhaps, do the species of FICUS so much abound as in the tropical parts of Asia, and Dr. WALLICH alone enumerates in his Catalogue no less than one hundred and five species. Among them is the present one, but which nevertheless does not appear to be any where described. It exists among a set of drawings (of which I possess copies) of Indian Figs, made under the direction of the late Dr. (BUCHANAN) HAMILTON, and with the name here adopted, though I confess that the appellation under which it has been long cultivated in the Glasgow Botanic Garden (F. *cerasiformis*) is more appropriate. It is a handsome species, remarkable for its solitary, pedunculated, pendent, and tempting-looking fruit. It was, we believe, introduced by Dr. WALLICH from Silhet, and the specimen here figured was drawn in 1833.

Stem, in our plant, five or six feet high, the branches as well as *petioles* every where clothed with a dense, rusty-coloured tomentum. *Leaves* four or five inches to a span long, somewhat coriaceous, elliptical, petiolated, veiny, glabrous above and full green, beneath downy, with the veins prominent. *Receptacles* solitary, axillary, globose, pendent, larger than a bullace-plum, of a deep and bright orange colour, somewhat mealy and tuberculated on the surface, and terminating a stalk longer than itself. *Flowers*, in the receptacles that were examined, apparently all female. *Perianth* three-cleft or three-partite, with the segments lanceolate and acuminated. *Germen* pedicellate, oval, oblique, with a lateral style.

Fig. 1. Receptacle; *nat. size*. 2. Female Flower. 3. The same laid open; *magnified*.

3283.



Wm. J. Hooker del.

Pub. by S. Curtis, Glazenwood, Essex. Dec. 1. 1833.

Swan Sc.

LUPINUS INCANUS. HOARY LUPINE.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx profunde bilabiatus. *Corolla* papilionacea, vexillo lateribus reflexis, carina acuminata. *Stamina* monadelpha, vagina integra; *antheris* 5 parvis subrotundioribus præcocioribus, 5 oblongis serioribus. *Stylus* filiformis. *Stigma* terminale subrotundum barbatum. *Legumen* coriaceum oblongum compressum oblique torulosum. *Cotyledones* crassæ per germin. in folia conversæ. *D C.*

Specific Character and Synonym.

LUPINUS *incanus;* caule suffruticoso ramoso, foliis digitatis foliolis lineari-lanceolatis utrinque sericeis integerrimis subcarinatis petiolo duplo brevioribus, racemo elongato, pedicellis æqualiter sparsis patulis, calycibus basi nudis, labio superiore bi- inferiore tridentato, vexillo alis breviore emarginato, leguminibus immaturis erectis sericeo-lanatis apicibus approximatis. *Graham.*

LUPINUS incanus. *Graham, in Edin. Phil. Journ.* 1833.

The beautiful Genus of *Lupine,* of which the greater number of species, hitherto enumerated in our universal Floras, are natives either of the South of Europe or of the Andes of Peru, has been greatly increased by the discoveries of Mr. DOUGLAS on the north-west coast of America, where that indefatigable Naturalist has detected no less than seventeen species in his first visit to the shores of the Columbia, and several have rewarded him on his second visit, as well as in California. Thus the Genus may be considered to have its maximum on the western side of the Cor-

dillera of North America. The present very handsome species is a native of South America, and "was raised by Mr. NEILL, from seed sent by Mr. TWEEDIE of Buenos Ayres, and flowered freely in the greenhouse at Canonmills in June, 1833. It approaches very near to LUPINUS *multiflorus* of Encyclop. Méthodique, vol. iii. p. 624, and had it not been for the very conspicuous pedicels in Mr. NEILL's plant, I should scarcely have separated them."

DESCR. "Whole *plant* silky, excepting only the corolla, stamens, and style. *Stem* suffruticose, erect, branched. *Leaves* (about six inches across) digitate, leafets about nine, linear-lanceolate, silky on both sides, carinate below, entire, very acute. *Petiole* nearly twice the length of the leafets, compressed vertically. *Stipules* (an inch and a quarter long,) adhering for about half their length, subulate. *Raceme* (a foot and a half long) terminal, elongated. *Pedicels* scattered equally over the rachis to within a little way of its base, which is naked, spreading when in flower, when in fruit erect, springing from the axil of a subulate, caducous bractea. *Calyx* bilabiate, the upper lip two-, the lowest three-toothed, bibracteate towards the base, bractea small, subulate, adpressed, inconspicuous. *Corolla* pale lilac; *vexillum* reflected upwards and at the sides, subrotund, emarginate, cordate at the base, orange, and slightly spotted in the middle, keeled behind; *claw* short and rigid; *alæ* rather longer than the vexillum, straight in the upper edge, curved in the lower, and there cohering towards the apex, slightly turned up at the point, claws short; *keel* half the length of the alæ, more rigid and shining than the other parts of the flower, and of deeper purple colour at its point, which is raised above the upper edge of the alæ, dipetalous, petals cohering only near their apices. *Stamens* monadelphous, included, the five with rounded anthers only a little longer than the others; *anthers* orange-coloured; *pollen-granules* very small and nearly spherical. *Pistil* longer than the stamens; *stigma* very small, capitate; *style* subulate, glabrous, shining; *germen* silky; *ovules* several. Unripe *Legumes* erect, silky-woolly, subcylindrical, tapering and connivent at their apices." *Graham.*

Fig. 1. Calyx, including the Carina. 2. Flower. 3. Stamens including the Pistil. 4. Young Legume: *magnified.*

3284.

J. H. del.

Pub. by S. Curtis Glazenwood, Essex Dec. 1. 1833.

ANTHYLLIS WEBBIANA. ROSE-COLOURED KIDNEY-VETCH, OR Lady's Finger.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Cal. tubulosus 5-dentatus post anthesin persistens, plus minus vesicarius inflatus. *Cor.* alæ carina et vexillo subæquales. *Stam.* omnia connexa. *Legumen* ovatum 1—2-spermum, rarius oblongo-lineare polyspermum semper calyce induviato tectum.—Herbæ *aut* Frutices. *D C.*

Specific Character and Synonym.

ANTHYLLIS *Webbiana*; herbacea erecta incano-sericea, foliis pinnatis, foliolis 7—11 ovalibus acutis terminali majore, capitulis subcompositis bracteatis, bracteis cuneato-rotundatis vix ad medium multifidis, calycibus sub anthesin cylindraceis.

ANTHYLLIS Webbiana. *Hort. Birm.*

The Latin generic name of this plant is derived from ανθος, a *flower*, and ιουλος, a *beard*, or *down*, in consequence of the hairy or downy calyces, a character in which the present plant is by no means deficient: whilst the most popular of its English names has been given from a fancied resemblance in the bracteas to the fingers of the human hand: hence *Lady's Finger* (not " *Ladies Finger,*" as commonly written) the Fingers of our Lady, the Virgin Mary, to whose honour many plants were dedicated by the piety of our forefathers. The species now given was communicated by Mr. CAMERON in May last, from the Botanic Garden of Birmingham, under the name here retained: it being considered new, and having been introduced from Teneriffe by

Philip Barker Webb, Esq. It is indeed an extremely delicate and pretty plant *, and has at first sight the appearance of a distinct species, though on a closer examination, it will be difficult to discover characters by which it may be satisfactorily separated from our British A. *vulneraria*. The side leaflets of the leaves are perhaps more uniform, the bracteas are less deeply cut, the calyx is more cylindrical and longer, and the whole herb is clothed with soft, white, silky hairs, on which, together with the rose-coloured blossoms, it depends for its beauty. It is hardy, and should be cultivated on a dry soil.

Descr. *Root* perennial. *Stems* one or more from the same root, erect, or decumbent only at the base, six to eight or ten inches high, branched, silky. *Leaves* mostly from near the root, pinnated with from seven to eleven, oval, acute leaflets, of which the terminal one is the largest; all of them white with appressed, silky hairs. *Flowers* in terminal and more or less compound heads. *Bracteas* roundish, cuneate, multifid, silky. *Calyx* densely silky, cylindrical while in flower, with five unequal teeth. *Corolla* of a delicate rose colour. *Petals,* especially the *carina,* on very long, white claws. *Germen* stipitate, three-seeded: *Style* long, filiform: *Stigma* capitate.

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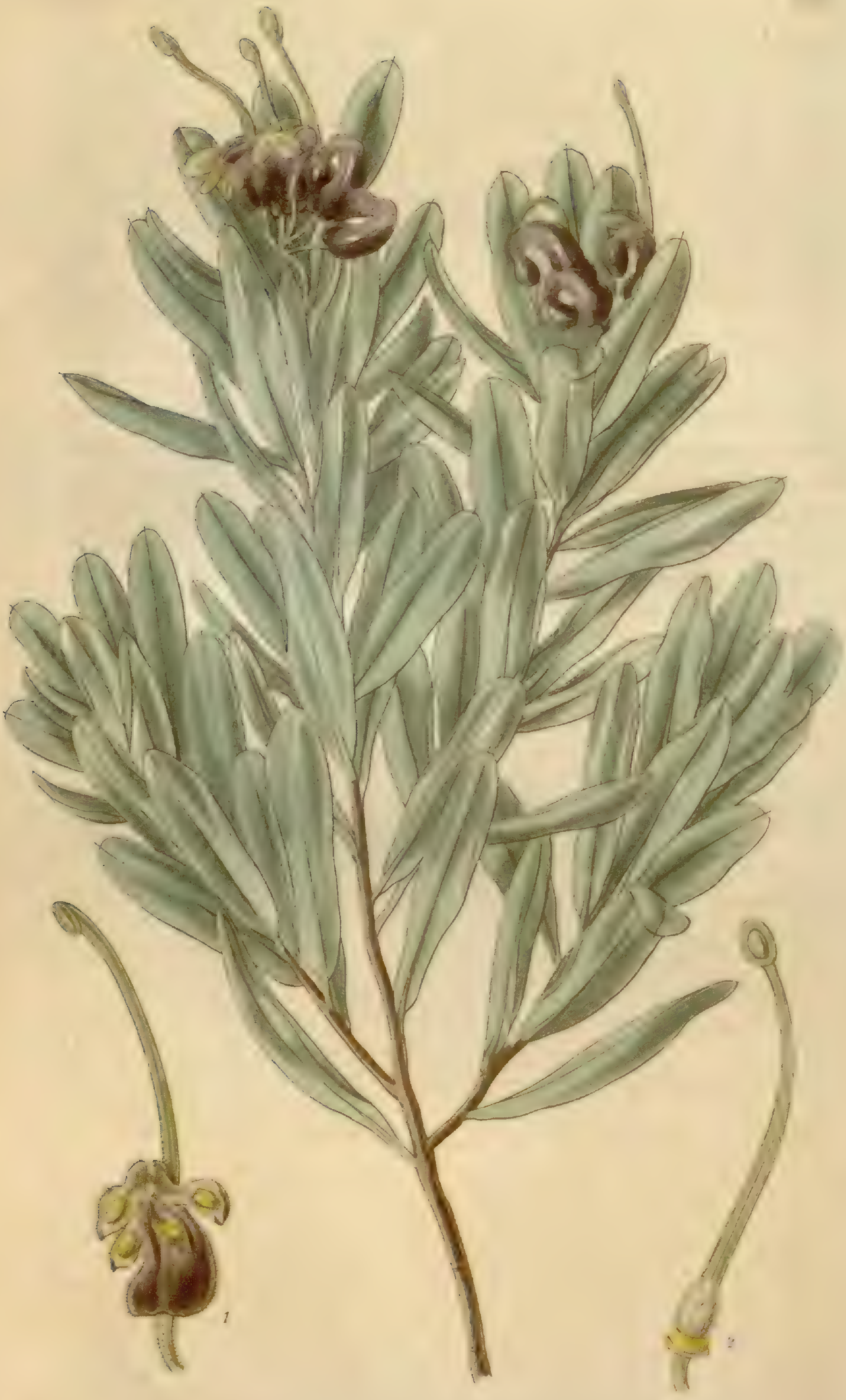
* It is probably this species which is mentioned in the List of Plants by Bory de St. Vincent, in his "Essai sur les Isles Fortunées, where, however, it only stands as "Anthyllis," without any name or remark.

Fig. 1. 1. Flower. 2. Carina. 3. Pistil: *magnified.*



W. J. H. del.

Pub by S. Curtis. Glazenwood. Essex Dec 1. 1833

GREVILLEA ARENARIA. SAND GREVILLEA.

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Class and Order.

TETRANDRIA MONOGYNIA.

(Nat. Ord.—PROTEACEÆ.)

Generic Character.

Perianthium irregulare; foliolis laciniisve secundis; apicibus cavis staminiferis. *Antheræ* immersæ. *Glandula hypogyna* unica dimidiata. *Ovarium* dispermum. *Stigma* obliquum, depressum, (raro subverticale, conicum). *Folliculus* unilocularis, dispermus, loculo centrali. *Semina* marginata, v. apice brevissime alata. *Br.*

Specific Character and Synonyms.

GREVILLEA (PTYCHOCARPA) *arenaria;* foliis elongato-oblongis obtusis mucronulatis subter cinereo-subsericeis pilorum cruribus adpressis, venis primariis manifestis, racemis recurvis paucifloris, perianthii laminis pariter acutis, pistillis tomentosis. *Allan Cunningham ex Br. Suppl. p.* 18, *in Obs. ad calcem paginæ.*

GREVILLEA arenaria. *Brown, Prodr. v.* 1. *p.* 378. *Roem. et Schult. v. 3. p.* 412. *Spreng. Syst. Veget. v.* 1. *p.* 476.

LISSANTHE cana. " *Knight and Salisb. Prot.* 117."

Communicated from the Royal Gardens of Kew, through the favour of Mr. AITON, by Mr. ALLAN CUNNINGHAM, who observes, that " it is an old inhabitant of the English gardens, flowering freely in the spring months, only requiring the shelter of a well-lighted greenhouse, and the care afforded to others of the same section of this extensive, diversified, and beautiful Genus of PROTEACEÆ. It is found in the alluvial, sandy banks of the Hawksbury River, in the colony of New South Wales, where, however, I never could meet with it, and whence I infer that it has a very limited range in its native country. Mr. BROWN considers it to be very closely allied to his G. *canescens*, figured in Bot. Mag. t. 3185."

So closely indeed is this allied to G. *canescens*, that, in most particulars, the description of one will suffice for that of the other. The perianth, however, is differently formed, and of a different colour; for whereas in A. *canescens* it is of a greenish hue, almost of the same tint as the leaves, and the segments much acuminated; here the colour is a dull or lurid purple, and the segments are simply acute, or almost obtuse, by no means acuminated.

Fig. 1. Flower. 2. Pistil: *magnified.*

W. J. H. delᵗ.

Pub by S. Curtis, Glazenwood, Essex. Dec. 1. 1833

Swan. S

ANDROMEDA SALICIFOLIA. WILLOW-LEAVED ANDROMEDA.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—ERICEÆ.)

Generic Character.

Cal. 5-partitus. *Cor.* ovata, ore quinquefido. *Capsula* supera, 5-locularis, dissepimentis e medio valvarum.

Specific Character and Synonyms.

ANDROMEDA *salicifolia;* racemis secundis glabris, foliis lanceolatis subtrinervibus coriaceis basi apiceque attenuatis glabris subtus albidis.

ANDROMEDA salicifolia. *Commers. MSS. Lam. Encycl. v.* 1. *p.* 159. *Smith, Ic. ined. t.* 58. *Hook. Ex. Fl. t.* 192. *Spreng. Syst. Veg. v.* 2. *p.* 290.

The northern or mountainous parts both of the old and new world are the stations given for the greater number of species of ANDROMEDA: but the present is an inhabitant of the tropics, and not in very elevated situations. It was first detected in the Mauritius by COMMERSON, and we are informed by our inestimable friend Mr. TELFAIR, that it is plentiful in the woods of Belombre. Messrs. HELSINBORG and BOJER gathered it in hilly places on the banks of rivers in the province of Emirena, Madagascar. Hitherto we possess only figures made from native specimens: but, by the late Mr. TELFAIR* it has been introduced to the garden of the late

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* It is with the most sincere regret that we learn from Professor BOJER, of the Royal College of Mauritius, and while this sheet is in the press, that Mr. TELFAIR is no more. Ever since the death of his accomplished lady, which

Robert Barclay, and thence to the Birmingham Botanic Garden, from which we received flowering specimens in May, 1833. The colour of the flowers is of a greenish hue, partaking little of the fine purple so remarkable in drawings from living, native specimens. It is hardly necessary to say that it needs the protection of a warm greenhouse, and should be cultivated in soil containing a considerable proportion of peat.

Descr. A low shrubby plant, glabrous throughout. *Leaves* alternate, coriaceous, lanceolate, acuminate, entire, tapering at the base into a short petiole, costate and marked with a depressed line on each side the midrib, dark green above, pale and almost white beneath. *Racemes* terminal, and lateral. *Calyx* five-toothed. *Corolla* pale green, inclining to purple, oblongo-ovate, five-toothed, with a slightly contracted mouth. *Stamens* with subulate filaments: *Anthers* oblong, two-celled, each cell opening with a pore at the extremity. *Germen* five-lobed. *Style* shorter than the corolla.

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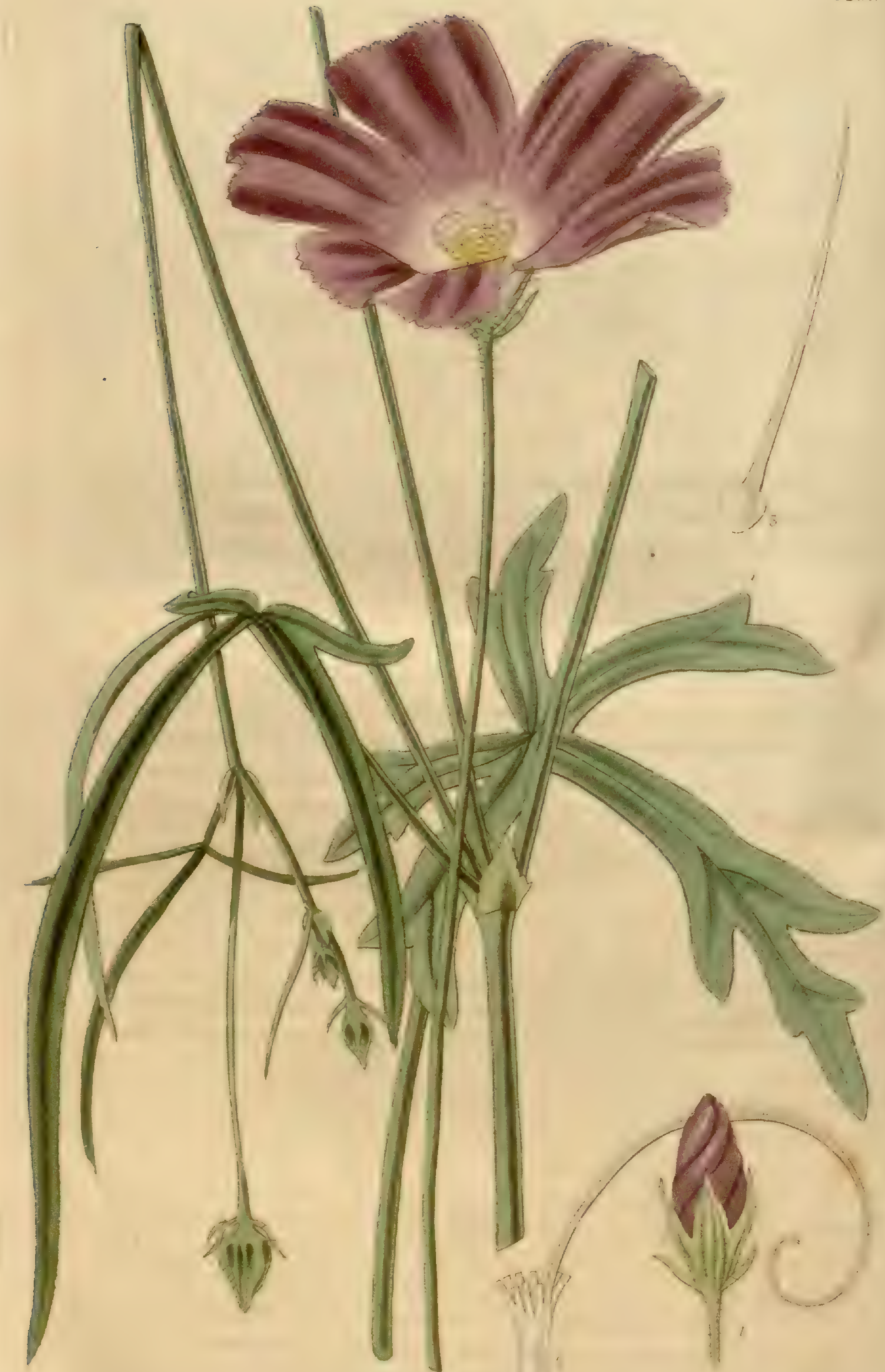
which took place the preceding year, our valued friend, as he himself informed us, seemed to have lost every earthly tie; and, after a violent, but short illness of only five days, he breathed his last, on the 14th of July. In him science has to deplore one of her most ardent votaries, and society one of the best of men.

Fig. 1. Flower. 2. Stamen:—*magnified.*

3287.



Dr. Greville delt.

Pub: by S. Curtis Glazenwood Essex Dec 1. 1833.

NUTTALLIA PAPAVER. PAPAVER-LIKE NUTTALLIA.

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Class and Order.

MONADELPHIA POLYANDRIA.

(Nat. Ord.—MALVACEÆ.)

Generic Character.

Cal. simplex (nunc duplex, *ext.* triphyllo), quinquefidus. *Capsulæ* plurimæ monospermæ in annulo congestæ. *(Nutt.* sub *Callirhoen.)*

Specific Name and Character.

NUTTALLIA *Papaver;* foliis radicalibus lobatis palmatisve, caulinis inferioribus palmatis, superioribus simplicibus digitatisve, calycibus pilosis involucratis, involucro triphyllo, foliolis lanceolatis pilosis. *Graham.*

In the Exotic Flora, at tab. 171 and 172, I had the pleasure of figuring two distinct species of the present Genus, detected by Mr. NUTTALL on the Arkansa River. Their discoverer has justly remarked, that this Genus, of which the species are hardy, ornamental, and perennial, " appears to afford an additional link of connection between the Genera SIDA and MALVA." Had he been acquainted with the present individual, he would have found his idea still further strengthened, for here, with a habit altogether that of the other NUTTALLIÆ, there is the involucre of a MALVA. The presence of this involucre does indeed appear to me to distinguish the species at once both from N. *pedata* and N. *digitata:* and this is constant in the wild specimens sent from Covington, Louisiana, by Mr. DRUMMOND, in the spring of 1833, as well as in all the cultivated ones raised from seeds transmitted by the same indefatigable Naturalist, and from the same place. These seeds have been distributed among different gardens, and have probably produced flowering plants in several collections. Scarcely was our drawing finished, from the Glasgow Botanic Garden specimens, when I had the satisfaction to receive a beautiful figure (made by Dr. GREVILLE), and a description from Dr. GRAHAM*, done from plants of the Edinburgh Botanic Garden, both of which are here given in preference to my own. It appears to be quite hardy, and is highly ornamental.

DESCR. *Stems* numerous, from the crown of the root, ascending, slightly hairy, hairs adpressed. *Root-leaves* on very long petioles, lobed or pedate, thinly sprinkled on both sides and on the edges with harsh hairs. *Lower stem-leaves* palmato-pedate, *upper* digitate or simple, nerved, all slightly hairy; *lobes* of the radical and lower stem-leaves more or less inciso-pinnatifid. *Stipulæ* ovate, acute, ciliated. *Peduncles* very long, axillary, single-flowered. *Involucrum* three-leaved, closely surrounding the calyx, *leafets* lanceolate, hairy. *Calyx* five-cleft, *segments* ovate, acute, three-ribbed, hairy; *hairs* spreading, acute, rising singly from tubercles placed on the ribs or edges of the segments. *Corolla* of five petals, campanulate, large, red-purple; *petals* obovate, truncated, and unequally crenato-dentate at their extremity, cuneate at the base, and there woolly on the edges. *Stamens* very numerous; *filaments* united into a somewhat hairy, conical tube for about two-thirds of their length; *anthers* kidney-shaped, reddish-yellow, single-celled, opening along the vertex. *Pistil* at first shorter than the stamens; *stigmata* linear, reddish, hairy, decurrent along the inside of the numerous, deeply divided, at length protruded segments of the style; *germen* depressed, glabrous; *cells* arranged in a circle, yellowish, each emarginate on the outside, and within extended into a dark green, blunt apex. *Ovules* solitary in each cell, reniform, attached by the sinuosity and pendulous.

I have hesitated about describing this plant as a distinct species, fearful that in the Genus there may be a strong disposition to vary. So many plants, however, have flowered in different gardens around Edinburgh, some from imported roots, others from seed—as in Mr. CUNNINGHAM's Nursery, Comely Bank, at Mr. NEILL's, and with Mr. FALCONAR of Carlowrie—and all with precisely the same characters, that I believe it will be thought at least as distinct from either of the two species already in cultivation as they are from each other. The presence of the involucrum brings the Genus too near MALVA. *Graham.*

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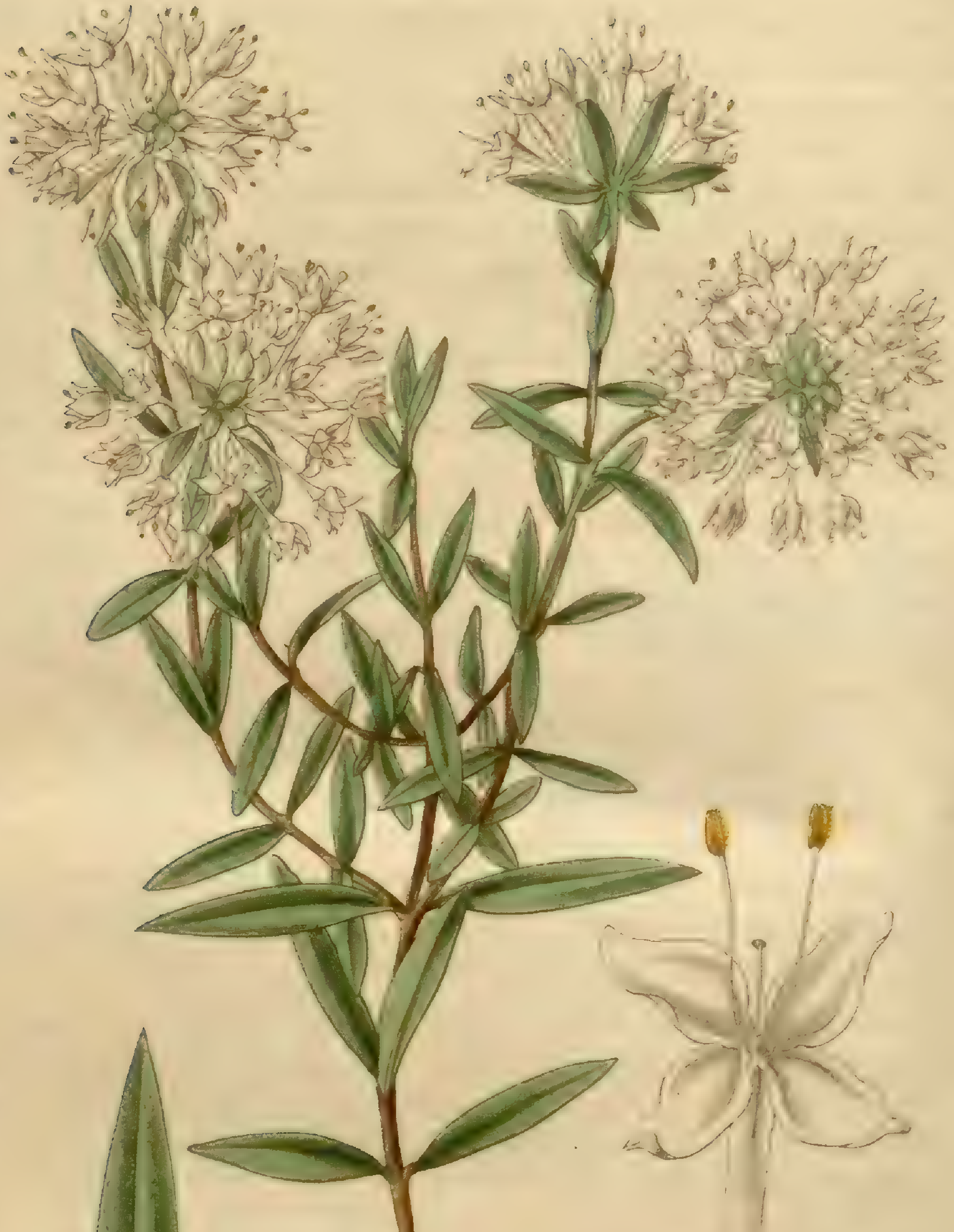
* It is very much through the instrumentality of Dr. GRAHAM, that Mr. DRUMMOND has been enabled to accomplish his long and successful journies in the southern States of North America, where, amidst many dangers, and notwithstanding the severest attacks of fever and cholera, he has amassed a collection of upwards of one thousand species of plants. The NUTTALLIA *Papaver*, and the little known SARRACENIA *psittacina* are among the most interesting that have been sent home in a living state. From Texas and New Mexico it is expected his collections will be still more valuable.

Fig. 1. Flower-Bud. 2. Portion of the Style with a Stigma. 3. Hair from the Calyx.

3289.



W. J. H. delt

Pub. by S. Curtis. Glazenwood Essex: Dec. 1. 1833.

Swan Sc.

(3288)

PIMELEA GRACILIFLORA. SLENDER-FLOWERED PIMELEA.

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—THYMELEÆ.)

Generic Character.

Perianthium infundibuliforme, limbo 4-fido, fauce esquamata. *Stam.* 2, fauci inserta, laciniis exterioribus opposita. *Stylus* lateralis. *Stigma* capitatum. *Nux* corticata, raro baccata. *Br.*

Specific Name and Character.

PIMELEA *graciliflora;* glabra, foliis oppositis patentibus lanceolatis acutis supra punctatis floralibus subsimilibus 6—7 involucratis capitulo multifloro brevioribus, perianthiis glaberrimis, tubo gracili filiformi-clavato.

Of this extensive Genus the species are very difficult to be distinguished, and at first sight, the present plant might be easily taken for the P. *sylvestris,* lately given at t. 3276 of this Magazine, and it flowers at the same season; but on a more accurate examination, it will be found that the leaves, which are narrower, are marked with impressed dots on the upper surface, and the flowers are pure white, with a much slenderer and more filiform tube. It is extremely pretty, flowering freely in the greenhouse in common peat soil, and retaining its snowy blossoms for a considerable length of time. It was raised from seeds sent by Mr. BAXTER from King George's Sound.

DESCR. *Stem,* in our plants, two feet and two feet and a half high, erect, slender, branched, chiefly upwards. *Leaves* opposite and decussate, rather remote, patent or horizontal, lanceolate, acute at both ends, dotted above: those of the involucre scarcely different from the rest, shorter than the flowers. These latter are in a rather lax head, and of snowy whiteness. *Perianth* with a long, pure white, slender tube, quite glabrous, slightly dilated upwards: the segments ovate, rather obtuse, spreading. *Filaments* much exserted. *Anthers* oblong, orange. *Style* exserted, very slender, with a capitate *stigma*. *Germen* ovate, green, surrounded by a tuft of hairs arising from the receptacle.

Fig. 1. Leaf. 2. Flower: *magnified.*

5289

[illegible] del.

[illegible] Dec 1 [illegible]

MARSDENIA FLAVESCENS. YELLOWISH-FLOWERED MARSDENIA.

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Class and Order.

PENTANDRIA DIGYNIA.

(Nat. Ord.—ASCLEPIADEÆ.)

Generic Character.

Corolla urceolata, 5-fida, nunc subrotata. *Corona staminea* 5-phylla, foliolis compressis, indivisis, intus simplicibus. *Antheræ* membrana terminatæ. *Massæ Pollinis* erectæ, basi affixæ. *Folliculi* læves. *Semina* comosa.— Suffrutices, *sæpius volubiles.* Folia *opposita, latiuscula, plana.* Cymæ *nunc* Thyrsi *interpetiolares.* Stigma *sæpius muticum, quandoque rostratum, rostro indiviso vel bifido. Br.*

Specific Character and Synonym.

MARSDENIA *flavescens ;* caule volubili, foliis oblongo-lanceolatis acuminatis subundulatis supra lævibus subtus ramulisque incano-tomentosis, pedunculis petiolo duplo longioribus, cymis confertifloris, corollis subrotatis, fauce nuda. *Allan Cunningham.*

MARSDENIA flavescens. *Allan Cunningham MSS.*

The Genus MARSDENIA was so named by Mr. BROWN, in compliment to WILLIAM MARSDEN, Esq. an encourager of Botany, and the able author of a History of Sumatra, a work of great interest and research. For the discovery of the species we are indebted to Mr. ALLAN CUNNINGHAM, who found it in New Holland, on the sea-shore at the Illawana district, in lat. 34½°, whence living plants were imported to His Majesty's Gardens at Kew, where they flower throughout the summer months, and whence our specimens were sent in June, 1833, by Mr. Aiton. Mr. Cunningham observes, that it comes near M. *viridiflora*, a plant discovered by Mr. Brown in New South Wales, within the tropics.

Descr. *Stem* climbing, shrubby, rounded, the branches downy. *Leaves* opposite, petiolate, oblongo-lanceolate, acute, subcoriaceous, waved, dark green and glabrous above, paler and downy beneath. *Peduncles* axillary, about twice as long as the petioles, bearing rather small cymes of yellowish *flowers*, with two small, opposite, bracteas at the base. *Calyx* five-cleft, downy. *Corolla* rotate, glabrous, of five deep, patent, ovate, acute, spreading segments. *Staminal crown* of five, fleshy teeth, united with the back of the anthers, which latter are diaphanous at the extremity. *Stigma* flat.

Fig. 1. 1. Flowers. 2. Corona, Anthers, and Stigma. 3. Pollen-masses: *magnified.*

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